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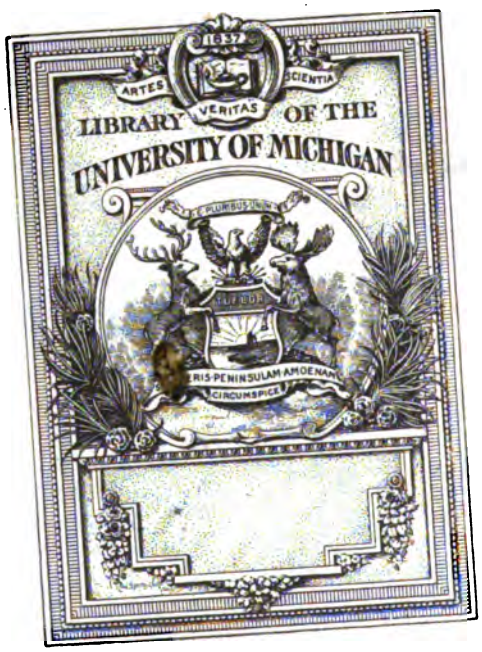
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CONTENTS.

		Page.
List of Publications		VIII
I.—Changing Conditions in the German Iron and Coal Markets	*Mason*	1
II.—Special Taxation of Department Stores in Germany	*Mason*	5
III.—The Elbe-Trave Canal	*Hill*	8
	Monaghan	9
IV.—New German Process of Welding Pipes	*Guenther*	9
V.—The Lapidary Industry of Birkenfeld	*Schumann*	10
VI.—The Telephonograph	*Warner*	11
VII.—Americanizing the German Shoe Trade	*Mason*	12
VIII.—The Utilization of Fruit in Germany	*Murphy*	13
IX.—Crops in Germany	*Mason*	18
X.—German Stoneware Factory	*Harris*	19
XI.—World's Production of Copper: Consumption in Germany	*Monaghan*	21
	Guenther	22
XII.—Chemical Foods in Germany	*Hughes*	22
XIII.—Street-Car Strike in Berlin	*Guenther*	23
XIV.—Municipal Ownership of Street Railways in Halle	*Murphy*	24
XV.—Railroad Accommodations in Central Europe	*Liefeld*	24
XVI.—Traveling Rates on Scotch Railroads	*Taylor*	27
XVII.—Freight and Insurance Rates in Foreign Trade	*Van Buren*	27
XVIII.—Transportation Taxes in Spain	*Storer*	29
XIX.—Electrical Tramways in Barcelona	*Lay*	32
XX.—Electric Tramways in Valencia	*Washington*	33
XXI.—Tanning Machinery in Spain	*Mason*	34
XXII.—American Wheat in Valencia	*Washington*	34
XXIII.—Extension of United States Trade with Spain	*Bartleman*	35
	Washington	42
XXIV.—Antwerp Ivory Market	*Lincoln*	44
XXV.—Lumber Market in Rotterdam	*Listoe*	44
XXVI.—American Trade in Scotland	*Fleming*	45
XXVII.—American Clover Seed	*Schumann*	46
XXVIII.—European Demand for Flax and Flaxseed	*Mason*	47
XXIX.—World's Coffee Production	*Bartleman*	48
XXX.—Foreign Shipbuilding in 1900	*Diederich*	49

		Page.
XXXI.—French Silk Industry	*Covert*	51
XXXII.—New Automatic Shuttle in France	*Atwell*	57
XXXIII.—Antialcohol Serum in France	*Atwell*	57
XXXIV.—Proposed United States-Swiss Alliance	*Guenther*	58
XXXV.—Pavements in Switzerland	*Gifford*	59
XXXVI.—Dentistry in Switzerland	*Morgan*	60
XXXVII.—Swiss Accident and Military Insurance Law	*DuBois*	65
XXXVIII.—German Sample Room in Constantinople	*Schumann*	65
XXXIX.—Change in Turkish Tariff	*Dickinson*	66
	Griscom	68
XL.—Russian Duties on Leather Goods	*Holloway*	69
XLI.—The Liquor Traffic in Russia	*Holloway*	70
XLII.—Farm Laborers' Wages in Sweden	*Winslow*	73
XLIII.—American Products in Siberia	*Harris*	74
XLIV.—Educational Progress in Eastern Siberia	*Greener*	75
XLV.—Temporary Customs Regulations at Vladivostock	*Greener*	78
XLVI.—German Exports of Candles and Soap to China	*Schumann*	81
XLVII.—Flour in Japan	*McLean*	82
XLVIII.—Tobacco Imports into Shanghai	*Goodnow*	83
XLIX.—Camphor Monopoly in Formosa	*Davidson*	84
L.—Quinine Auction at Batavia	*Rairden*	87
LI.—Trade of the Philippines in 1899	*Halstead*	88
LII.—Australian Butter Packing	*Murphy*	91
LIII.—Electric Works in Bombay	*Fee*	91
LIV.—United States Locomotives in Egypt	*Long*	95
LV.—Egyptian Cotton Industry	*Long*	96
LVI.—German Commerce with South Africa	*Winter*	98
LVII.—German Southwest Africa	*Harris*	98
LVIII.—Imports into Madagascar	*Covert*	99
LIX.—Tea and Coffee Production in Anam and Madagascar	*Covert*	100
LX.—Tariff in the Canary Islands	*Berliner*	101
LXI.—Customs Regulations in Canada	*Johnson*	102
LXII.—Mining in British Columbia	*Smith*	103
LXIII.—Notes from Dawson: The Koyukuk Region	*McCook*	106
LXIV.—Mining Concessions in Guatemala	*McNally*	108
LXV.—Commerce of Nicaragua	*Sorsby*	108
LXVI.—Projected Railway Extensions in Mexico	*Kindrick*	117
LXVII.—Consular Invoices for Salvador	*Jenkins*	119
LXVIII.—Tariff Additions in Salvador	*Jenkins*	121
LXIX.—Export Dues in Colombia	*Hanabergh*	121
LXX.—Farm Life in Brazil	*Seeger*	122
LXXI.—Public Works in Paraguay	*Ruffin*	123

Page.

LXXII.—Agricultural Exports from Uruguay.....*Swalm* 124

LXXIII.—Puerto Cabello Trade Notes.....*Ellsworth* 125

LXXIV.—Trade in the Danish West Indies..... .....*Van Horne* 126

LXXV.—Mineral Resources of Haiti: Railways.....*Powell* 128

LXXVI.—Notes (New German Glass—Tool Trust in Germany—Soap Trade in Mannheim—German Shoe Experts at Paris—German Automobile Mail Coaches—Horse and Dog Meat as Food in Germany—Acreage of Sugar Beets for the Year 1900—Italian Electric Cartridges—Cheese of Pasteurized Milk in Sweden—American Passports in Hungary—Foreign Commercial Travelers in Roumania—Commercial Travelers in Switzerland—Waterworks at Moscow—Price of Hay in Southwest France—French Crop Reports—Fruits in France—Preventing Incrustation in Boilers—New German-American Cable—The Supply of Gutta-Percha—Demand for Old Casks in Great Britain—Demand for Machinery in Canary Islands—A Commercial School for Tiflis—Trade of Smyrna—Dutch Demand for Coal—Belgian Demand for Coal—Coal at Breslau—United States Coal for Brazil—Foreign Trade-Marks in Brazil—Export of Argentine Wheat—Diseased Argentine Cattle at Cape Town—Australian vs. American Meat in South Africa—Tariff Bill in Uruguay—Financial Measures in Haiti—United States Vessels at Vancouver—Pulp Mill in British Columbia—Foreign Shares in Japanese Railways—Steamship Service with Chungking—Musical Instruments in the Philippines—Conditions in Kiangsu Province—Property Tax in Madagascar—Certificates of Origin in Turkey—Government Loan in British India—Agricultural Machines in Bulgaria—Tariff Edict in Italy—German Prizes for Lamps—Lighting Cities in Haiti—Business Licenses in Haiti—Haitian Duties on Dominican Goods—Guatemalan Cattle Exports—Cigarettes in Colombia—Consular Reports Transmitted to Other Departments)..... 131

LXXVII.—Foreign Reports and Publications (Trade in the Sahara Desert—Notes from Vladivostock—Commerce of Finland—Commercial Conditions in Spain—General Warehouses in Mexico) 146

REPORTS BY COUNTRIES.

	Page.
AFRICA:	
German Southwest	98
AFRICA, SOUTH:	
Australian vs. American meat in	140
Diseased Argentine cattle at Cape Town	140
German commerce with	98
ANAM:	
Tea and coffee production in	100
ARGENTINE REPUBLIC:	
Export of wheat	140
AUSTRALIA:	
Butter packing in	91
BELGIUM:	
Antwerp ivory market	44
Demand for coal in	139
BRAZIL:	
Farm life in	122
Foreign trade-marks in	139
United States coal for	139
BULGARIA:	
Agricultural machines in	144
CANADA:	
Customs regulations in	102
Mining in British Columbia	103
Notes from Dawson: The Koyukuk region	106
Pulp mill in British Columbia	142
United States vessels at Vancouver	142
CANARY ISLANDS:	
Demand for machinery in	137
Tariff in	101
CHINA:	
Conditions in Kiangsu Province	143
Steamship service with Chungking	142
Tobacco imports into Shanghai	83
COLOMBIA:	
Cigarettes in	145
Export dues in	121
DANISH WEST INDIES:	
Trade in	126
EGYPT:	
Cotton industry of	96
United States locomotives in	95
EUROPE:	
Demand for flax and flaxseed in	47
EUROPE, CENTRAL:	
Railroad accommodations in	24

	Page.
FORMOSA:	
Camphor monopoly in	84
FRANCE:	
Antialcohol serum in	57
Crop reports of	136
Freight and insurance rates in foreign trade	27
Fruits in	136
German shoe experts at Paris	132
New automatic shuttle in	57
Price of hay in Southwest	135
Silk industry of	51
GERMANY:	
Acreage of sugar beets for the year 1900	133
American clover seed in	46
Americanizing the German shoe trade	12
Automobile mail coaches in	132
Changing conditions in the iron and coal markets of	1
Chemical foods in	21
Coal at Breslau	139
Consumption of copper in	21
Crops in	18
Exports of candles and soap to China	81
Foreign shipbuilding in 1900	49
Horse and dog meat as food in	133
Municipal ownership of street railways in Halle	24
New process of welding pipes in	9
New glass in	131
New German-American cable	137
Preventing incrustation in boilers in	136
Prizes for lamps in	144
Soap trade in Mannheim	132
Special taxation of department stores in	5
Stoneware factory	19
Street-car strike in Berlin	23
The lapidary industry of Birkenfeld	10
The supply of gutta-percha	137
The telephonograph	11
The utilization of fruit in	13
Tool trust in	131
GREAT BRITAIN:	
Demand for old casks in	137
GUATEMALA:	
Cattle exports	145
Mining concessions in	108
HAITI:	
Business licenses in	145
Duties on Dominican goods	145
Financial measures in	141
Lighting cities in	144
Mineral resources of	128
Railways in	128
HUNGARY:	
American passports in	134

	Page.
INDIA:	
Electric works in Bombay	91
INDIA, BRITISH:	
Government loan in	144
ITALY:	
Electric cartridges in	133
Tariff edict in	144
JAPAN:	
Flour in	82
Foreign shares in railways of	142
JAVA:	
Quinine auction at Batavia	87
MADAGASCAR:	
Imports	99
Property tax in	143
Tea and coffee production in	100
MEXICO:	
Projected railway extensions in	117
NETHERLANDS:	
Demand for coal in	138
Lumber market in Rotterdam	44
The Elbe-Trave Canal	8
NICARAGUA:	
Commerce of	108
PARAGUAY:	
Public works in	123
PHILIPPINE ISLANDS:	
Musical instruments in	143
Trade of, in 1899	88
ROUMANIA:	
Foreign commercial travelers in	135
RUSSIA:	
A commercial school for Tiflis	138
Liquor traffic in	70
Duties on leather goods in	69
Waterworks in Moscow	135
SALVADOR:	
Consular invoices for	117
Tariff additions in	121
SCOTLAND:	
American trade in	45
Traveling rates on railroads of	27
SIBERIA:	
American products in	74
Temporary customs regulations at Vladivostock	78
SIBERIA, EASTERN:	
Educational progress in	75
SPAIN:	
American wheat in Valencia	34
Electrical tramways in Barcelona	32
Electric tramways in Valencia	33
Extension of United States trade with	35
Tanning machinery in	34
Transportation taxes in	29

	Page.
SWEDEN:	
Cheese of pasteurized milk in	134
Farm laborers' wages in	73
SWITZERLAND:	
Accident and military insurance law in	65
Commercial travelers in	135
Dentistry in	60
Pavements in	59
Proposed alliance with United States	58
SYRIA:	
Trade of Smyrna	138
TURKEY:	
Certificates of origin in	143
Change in tariff of	66
German sample room in Constantinople	65
URUGUAY:	
Agricultural exports	124
Tariff bill in	141
VENEZUELA:	
Puerto Cabello trade notes	125
WORLD:	
Coffee production of	48
Production of copper of	21

Full directions for binding the Consular Reports are given in No. 131, page 663.

PUBLICATIONS OF THE BUREAU OF FOREIGN COMMERCE.*

The publications of the Bureau of Foreign Commerce, Department of State, are:

I.—COMMERCIAL RELATIONS, being the annual reports of consular officers on the commerce, industries, navigation, etc., of their districts.

II.—CONSULAR REPORTS, issued monthly, and containing miscellaneous reports from diplomatic and consular officers.

III.—ADVANCE SHEETS, CONSULAR REPORTS, issued daily, except Sundays and legal holidays, for the convenience of the newspaper press, commercial and manufacturing organizations, etc.

IV.—EXPORTS DECLARED FOR THE UNITED STATES, issued quarterly, and containing the declared values of exports from the various consular districts to the United States for the preceding three months.

V.—SPECIAL CONSULAR REPORTS, containing series of reports from consular officers on particular subjects, made in pursuance to instructions from the Department.

Following are the special publications issued by the Bureau prior to 1890:

Labor in Europe, 1878, one volume; Labor in Foreign Countries, 1884, three volumes; Commerce of the World and the Share of the United States Therein, 1879; Commerce of the World and the Share of the United States Therein, 1880–81; Declared Exports for the United States, First and Second Quarters, 1883; Declared Exports for the United States, Third and Fourth Quarters, 1883; Cholera in Europe in 1884, 1885; Trade Guilds of Europe, 1885; The Licorice Plant, 1885; Forestry in Europe, 1887; Emigration and Immigration, 1885–86 (a portion of this work was published as CONSULAR REPORTS No. 76, for the month of April, 1887); Rice Pounding in Europe, 1887; Sugar of Milk, 1887; Wool Scouring in Belgium, 1887; Cattle and Dairy Farming in Foreign Countries, 1888 (issued first in one volume, afterwards in two volumes); Technical Education in Europe, 1888; Tariffs of Central America and the British West Indies, 1890.

The editions of all these publications except Tariffs in Central America, etc., are exhausted and the Department is, therefore, unable to supply copies.

In 1890, the Department decided to publish reports on special subjects in separate form, to be entitled SPECIAL CONSULAR REPORTS. There are now the following SPECIAL CONSULAR REPORTS:

Vol. 1 (1890).—Cotton Textiles in Foreign Countries, Files in Spanish America, Carpet Manufacture in Foreign Countries, Malt and Beer in Spanish America, and Fruit Culture in Foreign Countries.

Vol. 2 (1890 and 1891).—Refrigerators and Food Preservation in Foreign Countries, European Emigration, Olive Culture in the Alpes Maritimes, and Beet-Sugar Industry and Flax Cultivation in Foreign Countries.

Vol. 3 (1891).—Streets and Highways in Foreign Countries. (New edition, 1897.)

Vol. 4 (1891).—Port Regulations in Foreign Countries.

Vol. 5 (1891).—Canals and Irrigation in Foreign Countries. (New edition, 1898.)

Vol. 6 (1891 and 1892).—Coal and Coal Consumption in Spanish America, Gas in Foreign Countries, and India Rubber.

Vol. 7 (1892).—The Stave Trade in Foreign Countries and Tariffs of Foreign Countries.

Vol. 8 (1892).—Fire and Building Regulations in Foreign Countries.

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* Formerly Bureau of Statistics. Name changed to Bureau of Foreign Commerce by order of the Secretary of State, July 1, 1897.

Vol. 9 (1892 and 1893).—Australian Sheep and Wool and Vagrancy and Public Charities in Foreign Countries.

Vol. 10 (1894).—Lead and Zinc Mining in Foreign Countries and Extension of Markets for American Flour. (New edition, 1897.)

Vol. 11 (1894).—American Lumber in Foreign Markets. (New edition, 1897.)

Vol. 12 (1895).—Highways of Commerce. (New edition, 1899.)

Vol. 13 (1896 and 1897).—Money and Prices in Foreign Countries.

Vol. 14 (1898).—The Drug Trade in Foreign Countries.

Vol. 15 (1898).—Part I. Soap Trade in Foreign Countries; Screws, Nuts, and Bolts in Foreign Countries; Argols in Europe, Rabbits and Rabbit Furs in Europe, and Cultivation of Ramie in Foreign Countries. Part II. Sericulture and Silk Reeling and Cultivation of the English Walnut.

Vol. 16 (1899).—Tariffs of Foreign Countries. Part I. Europe. Part II. America. Part III. Asia, Africa, Australasia, and Polynesia.

Vol. 17 (1899).—Disposal of Sewage and Garbage in Foreign Countries; Foreign Trade in Coal Tar and By-Products.

Vol. 18 (1900).—Merchant Marine of Foreign Countries.

Vol. 19 (1900).—Paper in Foreign Countries; Uses of Wood Pulp.

Vol. 20 (1900).—Part I. Book Cloth in Foreign Countries; Market for Ready-Made Clothing in Latin America; Foreign Imports of American Tobacco; Cigar and Cigarette Industry in Latin America.

Of these SPECIAL CONSULAR REPORTS, Australian Sheep and Wool, Cotton Textiles in Foreign Countries; Disposal of Sewage, etc.; Files in Spanish America, Fire and Building Regulations, Gas in Foreign Countries, India Rubber, Lead and Zinc Mining, Malt and Beer in Spanish America, Port Regulations, Refrigerators and Food Preservation, Soap, etc.; Sericulture, etc.; Vagrancy, etc., are exhausted, and no copies can be supplied by the Department.

There was also published, in 1899, Proclamations and Decrees during the War with Spain, comprising neutrality circulars issued by foreign countries, proclamations by the President, orders of the War and Navy Departments, and war decrees of Spain.

Of the monthly CONSULAR REPORTS, many numbers are exhausted or so reduced that the Department is unable to accede to requests for copies. Of the publications of the Bureau available for distribution, copies are mailed to applicants without charge. In view of the scarcity of certain numbers, the Bureau will be grateful for the return of any copies of the monthly or special reports which recipients do not care to retain. Upon notification of willingness to return such copies, the Department will forward franking labels to be used in lieu of postage in the United States, Canada, the Hawaiian Islands, and Mexico.

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In order to prevent confusion with other Department bureaus, all communications relating to consular reports should be carefully addressed, "Chief, Bureau of Foreign Commerce, Department of State, Washington, U. S. A."

VALUES OF FOREIGN COINS AND CURRENCIES.

The following statements show the valuation of foreign coins, as given by the Director of the United States Mint and published by the Secretary of the Treasury, in compliance with the first section of the act of March 3, 1873, viz: "That the value of foreign coins, as expressed in the money of account of the United States, shall be that of the pure metal of such coin of standard value," and that "the value of the standard coins in circulation of the various nations of the world shall be estimated annually by the Director of the Mint, and be proclaimed on the 1st day of January by the Secretary of the Treasury."

In compliance with the foregoing provisions of law, annual statements were issued by the Treasury Department, beginning with that issued on January 1, 1874, and ending with that issued on January 1, 1890. Since that date, in compliance with the act of October 1, 1890, these valuation statements have been issued quarterly, beginning with the statement issued on January 1, 1891.

The fact that the market exchange value of foreign coins differs in many instances from that given by the United States Treasury has been repeatedly called to the attention of the Bureau of Foreign Commerce. An explanation of the basis of the quarterly valuations was asked from the United States Director of the Mint, and under date of February 7, 1898, Mr. R. E. Preston makes the following statement:

"When a country has the single gold standard, the value of its standard coins is estimated to be that of the number of grains fine of gold in them, 480 grains being reckoned equivalent to $20.67 in United States gold, and a smaller number of grains in proportion. When a country has the double standard, but keeps its full legal-tender silver coins at par with gold, the coins of both gold and silver are calculated on the basis of the gold value.

"The value of the standard coins of countries with the single silver standard is calculated to be that of the average market value of the pure metal they contained during the three months preceding the date of the proclamation of their value in United States gold by the Secretary of the Treasury. The value of the gold coins of silver-standard countries is calculated at that of the pure gold they contain, just as if they had the single gold standard.

"These valuations are used in estimating the values of all foreign merchandise exported to the United States. The value of the Indian rupee, although calculated according to law at the value of the pure metal contained therein, has a commercial value above the value of the silver bullion; consequently the value for customs purposes is determined in each case by the consular certificates attached to the invoice of exports from that country to the United States."

The following statements, running from January 1, 1874, to July 1, 1900, have been prepared to assist in computing the values in American money of the trade, prices, values, wages, etc., of and in foreign countries, as given in consular and other reports. The series of years are given so that computations may be made for each year in the proper money values of such year. In hurried computations, the reductions of foreign currencies into American currency, no matter for how many years, are too often made on the bases of latest valuations. When it is taken into account

that the ruble of Russia, for instance, fluctuated from 77.17 cents in 1874 to 37.4 cents in April, 1897, such computations are wholly misleading. All computations of values, trade, wages, prices, etc., of and in the "fluctuating-currency countries" should be made in the values of their currencies in each year up to and including 1890, and in the quarterly valuations thereafter.

To meet typographical requirements, the quotations for the years 1876, 1877, 1879, 1881, 1882, and 1891–95 are omitted, these years being selected as showing the least fluctuations when compared with years immediately preceding and following.

To save unnecessary repetition, the estimates of valuations are divided into three classes, viz: (A) countries with fixed currencies, (B) countries with fluctuating currencies. and (C) quarterly valuations of fluctuating currencies.

A.—*Countries with fixed currencies.*

The following official (United States Treasury) valuations of foreign coins do not include "rates of exchange."

Countries.	Standard.	Monetary unit.	Value in U.S. gold.	Coins.
Argentine Republic*.	Gold and silver..	Peso.....	$0.96,5	Gold—Argentine ($4.82,4) and ½ Argentine; silver—peso and divisions.
Austria-Hungary†.....	Gold	Crown.....	.20,3	Gold—20 crowns ($4.05,2) and 10 crowns.
Belgium	Gold and silver..	Franc.....	.19,3	Gold—10 and 20 franc pieces; silver—5 francs.
Brazil.....	Gold	Milreis.....	.54,6	Gold—5, 10, and 20 milreis; silver—½, 1, and 2 milreis.
British North America (except Newfoundland).	.....do	Dollar.....	1.00	
British Honduras.....	.....do	.....do	1.00	
Chile.....	.....do	Peso.....	.36,5	Gold—escudo ($1.25), doubloon ($3.65), and condor ($7.30); silver—peso and divisions.
Costa Rica.....	.....do	Colon.....	.46,5	Gold—2, 5, 10, and 20 colons; silver—5, 10, 25, and 50 centisimos.
Cuba	Gold and silver..	.....do	.92,6	Gold—doubloon ($5.01,7); silver—peso (60 cents).
Denmark	Gold	Crown.....	.26,8	Gold—10 and 20 crowns.
Egypt.....	.....do	Pound (100 piasters).	4.94,3	Gold—10, 20, 50, and 100 piasters; silver—1, 2, 10, and 20 piasters.
Finland.....	.....do	Mark.....	.19,3	Gold—10 and 20 marks ($1.93 and $3.85,9).
France	Gold and silver..	Franc.....	.19,3	Gold—5, 10, 20, 50, and 100 francs; silver—5 francs.
Germany	Gold	Mark.....	.23,8	Gold—5, 10, and 20 marks.
Great Britain.....	.....do	Pound sterling...	4.86,6½	Gold—sovereign (pound sterling) and half sovereign.
Greece.....	Gold and silver..	Drachma.....	.19,3	Gold—5, 10, 20, 50, and 100 drachmas; silver—5 drachmas.
Haiti	.....do	Gourde.....	.96,5	Silver—gourde.
Italy.....	.....do	Lira	.19,3	Gold—5, 10, 20, 50, and 100 lire; silver—5 lire.
Japan‡.....	Gold.....	Yen.....	.49,8	Gold—1, 2, 5, 10, and 20 yen.
Liberia	.....do	Dollar.....	1.00	
Netherlands§.....	Gold and silver..	Florin	.40,2	Gold—10 florins; silver—½, 1, and 2½ florins.
Newfoundland	Gold	Dollar.....	1.01,4	Gold—$2 ($2.02,7).
Portugal.....	.....do	Milreis.....	1.08	Gold—1, 2, 5, and 10 milreis.
Russia‖.....	.....do	Ruble.....	.51,5	Gold—imperial ($7.718) and ½ imperial ($3.80); silver—¼, ½, and 1 ruble.
Spain.....	Gold and silver..	Peseta.....	.19,3	Gold—25 pesetas; silver—5 pesetas.
Sweden and Norway.	Gold	Crown.....	.26,8	Gold—10 and 20 crowns.
Switzerland	Gold and silver..	Franc.....	.19,3	Gold—5, 10, 20, 50, and 100 francs; silver—5 francs.
Turkey	Gold	Piaster.....	.04,4	Gold—25, 50, 100, 200, and 500 piasters.
Uruguay	Gold	Peso.....	1.03,4	Gold—peso: silver—peso and divisions.
Venezuela.....	Gold and silver..	Bolivar.....	.19,3	Gold—5, 10, 20, 50, and 100 bolivars; silver—5 bolivars.

* In 1874 and 1875, the gold standard prevailed.

† The gold standard was adopted October 1, 1892. (See CONSULAR REPORTS No. 147, p. 623.) Values are still, however, frequently expressed in the florin or gulden, which is worth 2 crowns or 40.6 cents.

‡ Gold standard adopted October 1, 1897. (See CONSULAR REPORTS No. 201, p. 259.)

§ See note to table of fluctuating currencies.

‖ For an account of the adoption of the gold standard, see Review of the World's Commerce, 1896-97, p. 254.

B.—*Countries with fluctuating currencies, 1874–1890.*

Countries.	Standard.	Monetary unit.	Value in terms of the United States gold dollar on January 1—					
			1874.	1875.	1878.	1880.	1883.	1884.
Austria-Hungary*.	Silver	Florin	$0.47,6	$0.45,3	$0.45,3	$0.41,3	$0.40,1	$0.39,8
Bolivia	do	Dollar until 1890; boliviano thereafter.	.96,5	.96,5	.96,5	.83,6	.81,2	.80,6
Central America	do	Peso	.96,5	.91,8	.91,8	.83,6	.....	.....
China	Silver	Haikwan tael	1.61	1.61	.....	.....	.....	.....
Colombia	do	Peso	.96,5	.96,5	.96,5	.83,6	.81,2	.80,6
Ecuador	do	do	.96,5	.91,8	.91,8	.83,6	.81,2	.80,6
Egypt†	Gold	Pound (100 piasters).	.....	.....	4.97,4	4.97,4	4.90	4.90
India	Silver	Rupee	.45,8	.43,6	.43,6	.39,7	.38,6	.38,3
Japan	Gold	Yen	.99,7	.99,7	.99,7	.99,7	.....	.....
	Silver		.....	.....	.....	.....	.87,6	.86,9
Mexico	do	Dollar	1.04,7½	.99,8	.99,8	.90,9	.88,2	.87,5
Netherlands‡	Gold and Silver.	Florin	.40,5	.38,5	.38,5	.40,2	.....	.....
Peru	Silver	Sol	.92,5	.91,8	.91,8	.83,6	.81,2	.80,6
Russia	do	Ruble	.77,17	.73,4	.73,4	.66,9	.65	.64,5
Tripoli	do	Mahbub of 20 piasters.	.87,09	.82,9	.82,9	.74,8	.73,3	.72,7

Countries.	Standard.	Monetary unit.	Value in terms of the United States gold dollar on January 1—					
			1885.	1886.	1887.	1888.	1889.	1890.
Austria-Hungary*.	Silver	Florin	$0.39,3	$0.37,1	$0.35,9	$0.34,5	$0.33,6	$0.42
Bolivia	do	Dollar until 1880; boliviano thereafter.	.79,5	.75,1	.72,7	.69,9	.68	.85
Central America	do	Peso	.....	.....	.....	.69,9	.68	.85
Colombia	do	do	.79,5	.75,1	.72,7	.69,9	.68	.85
Ecuador	do	do	.79,5	.75,1	.72,7	.69,9	.68	.85
Egypt†	Gold	Pound (100 piasters).	4.90	4.90	4.94,3	4.94,3	4.94,3	4.94,3
India	Silver	Rupee	.37,8	.35,7	.34,6	.32,2	.32,3	.40,4
Japan	Gold	Yen	.....	.....	.99,7	.99,7	.99,7	.99,7
	Silver		.85,8	.81	.78,4	.75,3	.73,4	.91,7
Mexico	do	Dollar	.86,4	.81,6	.79	.75,9	.73,9	.92,3
Peru	Silver	Sol	.79,5	.75,1	.72,7	.69,9	.68	.85
Russia	do	Ruble	.63,6	.60,1	.58,2	.55,9	.54,4	.68
Tripoli	do	Mahbub of 20 piasters.	.71,7	.67,7	.65,6	.63	.61,4	.76,7

*The silver standard prevailed in Austria-Hungary up to 1892. The law of August 2 of that year (see CONSULAR REPORTS No. 147, p. 623) established the gold standard.

†The Egyptian pound became fixed in value at $4.94,3 in 1887.

‡The Netherlands florin fluctuated up to the year 1880, when it became fixed at 40.2 cents.

C.—*Quarterly valuations of fluctuating currencies.*

Countries.	Monetary unit.	1897.				1898.			
		Jan. 1.	April 1.	July 1.	Oct. 1.	Jan. 1.	April 1.	July 1.	Oct. 1.
Bolivia	Silver boliviano.	$0.47,4	$0.46,8	$0.44,3	$0.41,2	$0.42,4	$0.40,9	$0.41,8	$0.43,6
Central America.	Silver peso	.47,4	.46,5	.44,3	.41,2	.41,4	.40,9	.41,8	.43,6
China	Amoy tael	.76,7	.75,7	.71,7	.66,4	.68,5	.66,2	.67,6	.70,6
	Canton tael	.76,5	.75,5	.71,5	.66,4	.68,3	.66	.67,4	.70,4
	Chefoo tael	.73,3	.72,4	.68,6	.63,7	.65,5	.63,3	.64,6	.67,5
	Chinkiang tael	.74,9	.73,9	.70	.65,1	.66,9	.64,6	.66	.69
	Fuchau tael	.70,9	.70	.66,3	.61,6	.63,4	.61,2	.62,5	.65,3
	Haikwan tael	.78	.77	.73,1	.67,8	.69,7	.67,3	.68,8	.71,8
	Hankau tael	.71,7	.70,8	.67,1	.62,3	.64,1	.61,9	.63,2	.66
	Ningpo tael	.73,7	.72,8	.68,9	.64	.64,3	.63	.65	.67,9
	Niuchwang tael.	.71,9	.71	.67,2	.62,5	.65,9	.62	.63,4	.66,2
	Shanghai tael	.70	.69,1	.65,5	.60,8	.62,6	.60,4	.61,7	.64,5
	Swatow tael	.70,8	.69,9	.66,2	.61,5	.63,3	.61,1	.62,4	.65,2
	Takao tael	.77,2	.76,2	.72,2	.67	.66	.66,6	.68	.71
	Tientsin tael	.74,3	.73,4	.69,5	.64,6	.66,4	.64,1	.65,5	.68,4
Colombia	Silver peso	.47,4	.46,8	.44,3	.41,2	.42,4	.40,9	.41,8	.43,6
Ecuador	....do....	.47,4	.46,8	.44,3	.41,2	.42,4	.40,9	.41,8	.43,6
India*	Silver rupee	.22,5	.22,2	.21,1	.19,6	.20,1	.19,1	.19,9	.20,7
Japan	Silver yen	.51,1	.50,5						
Mexico	Silver dollar	.51,5	.50,8	.48,2	.44,6	.46	.44,4	.45,4	.47,4
Persia	Silver kran	.08,7	.08,6	.08,2	.07,6	.07,8	.07,5	.07,7	.08
Peru	Silver sol	.47,4	.46,8	.44,3	.41,2	.42,4	.40,9	.41,8	.43,6
Russia	Silver ruble	.37,9	.37,4						

Countries.	Monetary unit.	1899.				1900.		
		Jan. 1.	April 1.	July 1.	Oct. 1.	Jan. 1.	April 1.	July 1.
Bolivia	Silver boliviano.	$0.43,9	$0.43,4	$0.44,3	$0.43,6	$0.42,7	$0.43,6	$0.43,8
Central America	Silver peso	.43,9	.43,4	.44,3	.43,6	.42,7	.43,6	.43,8
China	Amoy tael	.71	.70,2	.71,6	.70,5	.69,1	.70,5	.70,9
	Canton tael	.70,8	.70	.71,4	.70,3	.68,9	.70,3	.70,7
	Chefoo tael	.67,9	.67,2	.68,4	.67,4	.66,1	.67,4	.67,8
	Chinkiang tael	.69,3	.68,6	.69,9	.68,9	.67,5	.68,8	.69,3
	Fuchau tael	.65,6	.65	.66,2	.65,2	.64	.65,2	.65,6
	Haikwan tael	.72,2	.71,4	.72,8	.71,8	.70,3	.71,7	.72,1
	Hankau tael	.66,4	.65,7	.67	.66	.64,7	.65,9	.66,3
	Ningpo tael	.68,2	.67,5	.68,8	.67,8	.66,5	.67,7	.68,2
	Niuchwang tael.	.66,5	.65,9	.67,1	.66,1	.64,8	.66,1	.66,5
	Shanghai tael	.64,8	.64,1	.65,4	.64,4	.63,1	.64,4	.64,8
	Swatow tael	.65,5	.64,9	.66,1	.65,1	.63,9	.65,1	.65,5
	Takao tael	.71,4	.70,7	.72	.71	.69,6	.70,9	.71,4
	Tientsin tael	.68,8	.68	.69,4	.68,3	.67	.68,3	.68,7
Colombia	Silver peso	.43,9	.43,4	.44,3	.43,6	.42,7	.43,6	.43,8
Ecuador	....do....	.43,9	.43,4	.44,3	.43,6	.42,7	.43,6	.43,8
India*	Silver rupee	.20,8	.20,6	.21	.20,7	.20,3	.20,7	.20,8
Mexico	Silver dollar	.47,7	.47,2	.48,1	.47 4	.46,4	.47,3	.47,6
Persia	Silver kran	.08,1	.08	.08,2	.08	.07,9	.08	.08,1
Peru	Silver sol	.43,9	.43,4	.44,3	.43,6	.42,7	.43,6	.43,8

*The commercial value of the rupee to be determined by consular certificate.

FOREIGN WEIGHTS AND MEASURES.

The following table embraces only such weights and measures as are given from time to time in CONSULAR REPORTS and in Commercial Relations:

Foreign weights and measures, with American equivalents.

Denominations.	Where used.	American equivalents.
Almude	Portugal	4.422 gallons.
Ardeb	Egypt	7.6907 bushels.
Are	Metric	0.02471 acre.
Arobe	Paraguay	25 pounds.
Arratel or libra	Portugal	1.011 pounds.
Arroba (dry)	Argentine Republic	25.3175 pounds.
Do	Brazil	32.38 pounds.
Do	Cuba	25.3664 pounds.
Do	Portugal	32.38 pounds.
Do	Spain	25.36 pounds.
Do	Venezuela	25.4024 pounds.
Arroba (liquid)	Cuba, Spain, and Venezuela	4.263 gallons.
Arshine	Russia	28 inches.
Arshine (square)	do	5.44 square feet.
Artel	Morocco	1.12 pounds.
Baril	Argentine Republic and Mexico	20.0787 gallons.
Barrel	Malta (customs)	11.4 gallons.
Do	Spain (raisins)	100 pounds.
Berkovets	Russia	361.12 pounds.
Bongkal	India	832 grains.
Bouw	Sumatra	7,096.5 square meters.
Bu	Japan	0.1 inch.
Butt (wine)	Spain	140 gallons.
Caffiso	Malta	5.4 gallons.
Candy	India (Bombay)	529 pounds.
Do	India (Madras)	500 pounds.
Cantar	Morocco	113 pounds.
Do	Syria (Damascus)	575 pounds.
Do	Turkey	124.7036 pounds.
Cantaro (cantar)	Malta	175 pounds.
Carga	Mexico and Salvador	300 pounds.
Catty	China	1.333⅓ (1⅓) pounds.
Do*	Japan	1.31 pounds.
Do	Java, Siam, and Malacca	1.35 pounds.
Do	Sumatra	2.12 pounds.
Centaro	Central America	4.2631 gallons.
Centner	Bremen and Brunswick	117.5 pounds.
Do	Darmstadt	110.24 pounds.
Do	Denmark and Norway	110.11 pounds.
Do	Nuremberg	112.43 pounds.
Do	Prussia	113.44 pounds.
Do	Sweden	93.7 pounds.
Do	Vienna	123.5 pounds.
Do	Zollverein	110.24 pounds.
Do	Double or metric	220.46 pounds.
Chih	China	14 inches.

*More frequently called "kin." Among merchants in the treaty ports it equals 1.33⅓ pounds avoirdupois.

Foreign weights and measures, with American equivalents—Continued.

Denominations.	Where used.	American equivalents.
Coyan	Sarawak	3.098 pounds.
Do	Siam (Koyan)	2,667 pounds.
Cuadra	Argentine Republic	4.2 acres.
Do	Paraguay	78.9 yards.
Do	Paraguay (square)	8.077 square feet.
Do	Uruguay	Nearly 2 acres.
Cubic meter	Metric	35.3 cubic feet.
Cwt. (hundredweight)	British	112 pounds.
Dessiatine	Russia	2.6997 acres.
Do	Spain	1.599 bushels.
Drachme	Greece	Half ounce.
Egyptian weights and measures	(*See* CONSULAR REPORTS No. 144.)	
Fanega (dry)	Central America	1.5745 bushels.
Do	Chile	2.575 bushels.
Do	Cuba	1.599 bushels.
Do	Mexico	1.54728 bushels.
Do	Morocco	Strike fanega, 70 lbs.; full fanega, 118 lbs.
Do	Uruguay (double)	7.776 bushels.
Do	Uruguay (single)	3.888 bushels.
Do	Venezuela	1.599 bushels.
Fanega (liquid)	Spain	16 gallons.
Feddan	Egypt	1.03 acres.
Frail (raisins)	Spain	50 pounds.
Frasco	Argentine Republic	2.5096 quarts.
Do	Mexico	2.5 quarts.
Frasila	Zanzibar	35 pounds.
Fuder	Luxemburg	264.17 gallons.
Garnice	Russian Poland	0.88 gallon.
Gram	Metric	15.432 grains.
Hectare	do	2.471 acres.
Hectoliter:		
Dry	do	2.838 bushels.
Liquid	do	26.417 gallons.
Joch	Austria-Hungary	1.422 acres.
Ken	Japan	6 feet.
Kilogram (kilo)	Metric	2.2046 pounds.
Kilometer	do	0.621376 mile.
Klafter	Russia	216 cubic feet.
Koku	Japan	4.9629 bushels.
Korree	Russia	3.5 bushels.
Kwan	Japan	8.28 pounds.
Last	Belgium and Holland	85.134 bushels.
Do	England (dry malt)	82.52 bushels.
Do	Germany	2 metric tons (4,480 pounds).
Do	Prussia	112.29 bushels.
Do	Russian Poland	113⅓ bushels.
Do	Spain (salt)	4,760 pounds.
League (land)	Paraguay	4,633 acres.
Li	China	2,115 feet.
Libra (pound)	Castilian	7,100 grains (troy).
Do	Argentine Republic	1.0127 pounds.
Do	Central America	1.043 pounds.
Do	Chile	1.014 pounds.
Do	Cuba	1.0161 pounds.
Do	Mexico	1.01465 pounds.
Do	Peru	1.0143 pounds.
Do	Portugal	1.011 pounds.
Do	Uruguay	1.0143 pounds.
Do	Venezuela	1.0161 pounds.
Liter	Metric	1.0567 quarts.

Foreign weights and measures, with American equivalents—Continued.

Denominations.	Where used.	American equivalents.
Livre (pound)	Greece	1.1 pounds.
Do	Guiana	1.0791 pounds.
Load	England (timber)	Square, 50 cubic feet; unhewn, 40 cubic feet; inch planks, 600 superficial feet.
Manzana	Costa Rica	1⅘ acres.
Do	Nicaragua and Salvador	1.727 acres.
Marc	Bolivia	0.507 pound.
Maund	India	82⅔ pounds.
Meter	Metric	39.37 inches.
Mil	Denmark	4.68 miles.
Do	Denmark (geographical)	4.61 miles.
Milla	Nicaragua and Honduras	1.1493 miles.
Morgen	Prussia	0.63 acre.
Oke	Egypt	2.7225 pounds.
Do	Greece	2.84 pounds.
Do	Hungary	3.0817 pounds.
Do	Turkey	2.85418 pounds.
Do	Hungary and Wallachia	2.5 pints.
Pic	Egypt	21¼ inches.
Picul	Borneo and Celebes	135.64 pounds.
Do	China, Japan, and Sumatra	133⅓ pounds.
Do	Java	135.1 pounds.
Do	Philippine Islands (hemp)	139.45 pounds.
Do	Philippine Islands (sugar)	140 pounds.
Pie	Argentine Republic	0.9478 foot.
Do	Castile	0.91407 foot.
Pik	Turkey	27.9 inches.
Pood	Russia	36.112 pounds.
Pund (pound)	Denmark and Sweden	1.102 pounds.
Quarter	Great Britain	8.252 bushels.
Do	London (coal)	36 bushels.
Quintal	Argentine Republic	101.42 pounds.
Do	Brazil	130.06 pounds.
Do	Castile, Chile, Mexico, and Peru	101.61 pounds.
Do	Greece	123.2 pounds.
Do	Newfoundland (fish)	112 pounds.
Do	Paraguay	100 pounds.
Do	Syria	125 pounds.
Do	Metric	220.46 pounds.
Rottle	Palestine	6 pounds.
Do	Syria	5¾ pounds.
Sagen	Russia	7 feet.
Salm	Malta	490 pounds.
Se	Japan	0.02451 acres.
Seer	India	1 pound 13 ounces.
Shaku	Japan	11.9305 inches.
Sho	do	1.6 quarts.
Standard (St. Petersburg)	Lumber measure	165 cubic feet.
Stone	British	14 pounds.
Suerte	Uruguay	2,700 cuadras (see cuadra).
Sun	Japan	1.193 inches.
Tael	Cochin China	590.75 grains (troy).
Tan	Japan	0.25 acre.
To	do	2 pecks.
Ton	Space measure	40 cubic feet.
Tonde (cereals)	Denmark	3.94783 bushels.
Tondeland	do	1.36 acres.
Tsubo	Japan	6 feet square.
Tsun	China	1.41 inches.

Foreign weights and measures, with American equivalents—Continued.

Denominations.	Where used.	American equivalents.
Tunna	Sweden	4.5 bushels.
Tunnland	do	1.22 acres.
Vara	Argentine Republic	34.1208 inches.
Do	Castile	0.914117 yard.
Do	Central America	32.87 inches.
Do	Chile and Peru	33.367 inches.
Do	Cuba	33.384 inches.
Do	Curaçao	33.375 inches.
Do	Mexico	13 inches.
Do	Paraguay	4 inches.
Do	Venezuela	1.384 inches.
Vedro	Russia	2.707 gallons.
Vergees	Isle of Jersey	71.1 square rods.
Verst	Russia	0.663 mile.
Vlocka	Russian Poland	41.98 acres.

METRIC WEIGHTS AND MEASURES.

Metric weights.

Milligram ($\frac{1}{1000}$ gram) equals 0.0154 grain.
Centigram ($\frac{1}{100}$ gram) equals 0.1543 grain.
Decigram ($\frac{1}{10}$ gram) equals 1.5432 grains.
Gram equals 15.432 grains.
Decagram (10 grams) equals 0.3527 ounce.
Hectogram (100 grams) equals 3.5274 ounces.
Kilogram (1,000 grams) equals 2.2046 pounds.
Myriagram (10,000 grams) equals 22.046 pounds.
Quintal (100,000 grams) equals 220.46 pounds.
Millier or tonnea—ton (1,000,000 grams) equals 2,204.6 pounds.

Metric dry measures.

Milliliter ($\frac{1}{1000}$ liter) equals 0.061 cubic inch.
Centiliter ($\frac{1}{100}$ liter) equals 0.6102 cubic inch.
Deciliter ($\frac{1}{10}$ liter) equals 6.1022 cubic inches.
Liter equals 0.908 quart.
Decaliter (10 liters) equals 9.08 quarts.
Hectoliter (100 liters) equals 2.838 bushels.
Kiloliter (1,000 liters) equals 1.308 cubic yards.

Metric liquid measures.

Milliliter ($\frac{1}{1000}$ liter) equals 0.0388 fluid ounce.
Centiliter ($\frac{1}{100}$ liter) equals 0.338 fluid ounce.
Deciliter ($\frac{1}{10}$ liter) equals 0.845 gill.
Liter equals 1.0567 quarts.
Decaliter (10 liters) equals 2.6418 gallons.
Hectoliter (100 liters) equals 26.417 gallons.
Kiloliter (1,000 liters) equals 264.18 gallons.

Metric measures of length.

Millimeter ($\frac{1}{1000}$ meter) equals 0.0394 inch.
Centimeter ($\frac{1}{100}$ meter) equals 0.3937 inch.
Decimeter ($\frac{1}{10}$ meter) equals 3.937 inches.
Meter equals 39.37 inches.

Decameter (10 meters) equals 393.7 inches.
Hectometer (100 meters) equals 328 feet 1 inch.
Kilometer (1,000 meters) equals 0.62137 mile (3,280 feet 10 inches).
Myriameter (10,000 meters) equals 6.2137 miles.

Metric surface measures.

Centare (1 square meter) equals 1,550 square inches.
Are (100 square meters) equals 119.6 square yards.
Hectare (10,000 square meters) equals 2.471 acres.

CONSULAR REPORTS.

COMMERCE, MANUFACTURES, ETC.

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CHANGING CONDITIONS IN THE GERMAN IRON AND COAL MARKETS.

The recent drop in the price of American iron and steel has produced a general feeling of apprehension among the ironmasters and holders of industrial securities in Germany and Great Britain.

Thoughtful and well-informed men in both countries, noting the gigantic strides with which the mining and handling of ores and coal and the production of coke, pig iron, and steel were being developed in the United States, have clearly foreseen the day when, the stress of an abnormally active home demand having been satisfied, the European iron markets would have to meet the attack of an American surplus, manufactured under every advantage of cheap, abundant materials, low freightage, and the highest, most effective substitution of machinery for human labor—conditions which would enable the Americans, when the time came, to reduce prices without serious impairment of a large and profitable output.

Partly as a feeler to test the approach of this critical conjucture, a German firm several months ago asked for proposals for the delivery of 100,000 tons of American pig iron. At that time the home demand in the United States was still active, and the American iron men replied briefly in the usual naïve, amiable way, giving a price per ton free on board at an American seaport, but leaving the important and difficult item of ocean freight to be figured out by the European purchaser, who is naturally in no position to know whether ships for outward-bound freights are obtainable at an American

port, or, if so, what rates are demanded. These early and indefinite offers created the impression here that the Americans were not yet ready or eager to sell pig iron.

But toward the end of May the announcement came that a machine foundry at Prague had closed a contract for 4,000 tons of American pig iron to be delivered at Hamburg for 73s. ($17.01) per ton between the date of contract and the autumn close of navigation on the Elbe. When this was followed, a few days later, by a similar report that an American firm had offered to a foundry in the Lower Rhine Province a large shipment of iron for 84 marks ($20) per ton c. i. f. Amsterdam, it was recognized by German furnace men that the hour of danger had come.

Not that the figures proposed were absolutely fatal. Eighty-four marks per ton at Amsterdam would mean, with freight to Westphalia added, somewhere about 99 marks ($23.16) per ton delivered at the foundry, and this would be a price with which German pig iron could still fairly well compete; and thereupon the commercial press hastened to stiffen up the declining stock market by comforting reassurances that the expected American invasion had not yet begun. These, however, have not served to blind intelligent men to the fact that this offer meant nothing more nor less than that America is already in a position, notwithstanding the present high rates of freight, to deliver iron at Amsterdam somewhat cheaper than German furnace men charge to customers at their very doors. If, with a freight of $4 to $4.50 per ton, American iron can be landed at a Belgian, Dutch, or German seaport for $20 per ton, what will be the situation when Southern iron—coming as undercargo in cotton ships from Norfolk, Mobile, or New Orleans, or brought in the great low-powered colliers that will yet be built—shall be carried from shore to shore at a rate of $2 per ton or less? With all the urgent home demand of last year, Germany exported 182,090 tons of pig iron in 1899, of which 101,433 tons, or more than half, went to Belgium. Under present conditions, that item of export is already as good as lost. Every intelligent expert in Germany knows that the high wages paid to American labor have had the natural effect of forcing the managers of American iron and mining industries to practice the utmost economy in that costly item, and this has compelled the invention and employment of highly perfected machinery, against which even the far cheaper labor of Europe can no longer compete on equal terms. When to this is added the other fundamental advantages of exhaustless deposits of ore, limestone, and coal, cheap transportation, and smelting and manufacturing plants of large capacity and modern construction, it needs only a corresponding development of ocean tonnage to place the future mastery of foreign

markets securely in American hands. Says the London Statist: "Over and above all, the shadow of America is towering over the market."

The Berlin Boersen Courier of June 13, discussing the situation in a philosophical spirit, recognizes the gravity of the competition which the German producers of pig iron will henceforth have to meet, advises them to reduce their selling prices at once, without being forced to do so by the influx of foreign iron, states that large contracts for the delivery of American pig iron in Germany have recently been signed, and adds that all this will be a great boon to the makers of hardware and many small articles of iron and steel, who have been compelled to almost suspend operations by the high cost of materials. Having enjoyed a long period of exceptional prosperity, the ironmasters' syndicates are now besought to gradually and steadily reduce the selling prices of their products to the lowest reasonable figure, and thus not only keep the home market in their own hands, but increase thereby the consumption of metals by stimulating railway and bridge building and car, railway, and ship construction—all of which have been restricted by the high cost of iron and steel. In all this they are advised to act unitedly and openly, and to avoid secret underbidding and everything which might be calculated to engender panic and unduly depress the market. There seems to be no mistaking the fact that the period of highest activity in the metal industries, in Germany as elsewhere, has been reached; and, although business is still brisk and many establishments filled with orders for some time to come, the average period of delivery has been reduced in some cases from six or eight months to as many weeks. So far as can be seen, there is as yet no abatement in the demand for machinery; the Baden Railway administration recently closed a contract with a Lower Rhine syndicate for 300,000 tons of rails and steel ties, and the car builders are working night and day upon orders that will occupy them throughout the year.

These changing conditions in the iron and steel industries have brought into renewed importance the unsatisfactory state of the coal market. With all the extraordinary efforts put forth by the German coal-mining syndicates during the past three months to increase their output and supply the urgent demands of consumers, coal is still not only dear, but scarce and difficult to obtain; and the trade journals which profess to treat the subject exhaustively generally agree that German consumers must accept the fact that they will have to pay high prices for coal and coke for a long time to come. This was bad enough during the flush times when iron and steel were selling for prices that could easily justify and recoup the cost of expensive raw materials; but with the metal market past its

zenith and a general decline in prices not only inevitable, but already begun, the stubbornness of the coal market becomes a serious element in the problem. Complaints and recriminations are heard against the coal and coke syndicates, which are accused of rapacity and of deliberately keeping the output so far below the requirements of consumption as to maintain the panic prices built up during a critical period, which is now past. So great is this feeling that a few days ago representatives of a number of boards of trade in the Rhine Province and Westphalia met at Cologne and, after a vigorous discussion, formulated an elaborate demand upon the coal syndicates, which had not been invited to attend or take any part in the conference. These demands covered important modifications in the conditions hitherto enforced by the syndicates in their sales to dealers and large consumers, and insisted that the large export coal trade should be abandoned or seriously reduced and German coal kept at home. It was pointed out that, notwithstanding the necessities of the four months ended April 30, the exports of German coal had reached 5,203,152 tons, an increase of 690,953 tons over those of the corresponding period in 1899; whereas the usual imports from the Bohemian mining region had been seriously reduced by the strike of miners and the extortionate demands of the operators.

The force of such an argument as this could not be denied, and the syndicate managers have replied that their contracts for the coal supplies of the Roumanian railways (60,000 tons per annum) would not be renewed, and that a similar contract with the railways of Sweden, which the syndicate a year ago made a vigorous effort to secure, would be likewise given up at the end of the year. There is another five-year contract for gas coal with the city of Paris which will have to be fulfilled, but all other foreign contracts were for one year only and will not be renewed at expiration. Hitherto, the syndicates have had a rule to sell not less than 500 carloads of coal to one purchaser, and this operated to force all small consumers to buy their supplies from dealers or middlemen. At the demand of the meeting at Cologne, this minimum limit has been reduced to 250 carloads, which will permit an increased number of consumers to buy directly from the syndicate.

These concessions are good so far as they go, but they can at best only serve to mitigate the difficulty, which is based upon the fundamental and stubborn fact that the consumption of coal in Germany, Russia, Austria, Italy, and France has outgrown the normal home supply of those countries; that as mines grow deeper and wages and costs of living increase, the expenses of mining, and therefore the cost of producing coal, have become greater; and that, in common with the iron industries, shipbuilding, and other branches of manufacture,

coal operators everywhere have naturally sought the opportunity to make greater profits, and this they will continue to do as long as the demand for fuel continues. The one controlling force which consumers have in their hands is increased imports. The coal syndicates regulate practically the entire domestic supply and are too powerful and ably managed to be swayed by any argument that does not appeal to their interests. As the prices of finished products decline, the necessity for cheaper raw materials—notably coal and pig iron—will become more urgent, and this necessity will continue to present an opportunity for American exporters. Whether a wiser, more far-sighted economy might not dictate that these materials should be worked up at home and only the ultimate finished products exported is, of course, another question which need not be considered here. Intelligent opinion in Europe concedes that when values in the iron and steel markets have settled down to a normal level, the Americans, by virtue of their power of cheap production, will remain masters of the field. It remains to be seen whether they will strengthen their one weak point—ocean tonnage under their own flag—and play the commanding rôle to which they are entitled.

FRANK H. MASON,
Consul-General.

BERLIN, *June 20, 1900.*

SPECIAL TAXATION OF DEPARTMENT STORES IN GERMANY.

In a previous report of this series (CONSULAR REPORTS No. 227, August, 1899, pp. 593–598*) an account was given of the efforts which had been made during a period of several years to secure the enactment of a law levying a special and progressive tax upon bazaars or department stores. All these efforts, the latest of which had terminated in a debate which took place in the Prussian Diet during April of last year, had failed, for the reason, mainly, that the proposed statute was opposed by the class of supply stores which serve exclusively military officers and Government officials and exercise therefore a definite influence in legislative affairs. But, notwithstanding all opposition and hesitation on part of the Government, the measure has been brought up at the recent session of the Prussian Parliament, and after a long and interesting debate was adopted by both houses on the 18th of June and proclaimed by royal edict to take effect from the 1st of January, 1901.

In view of the practical interest which this class of legislation may

*ADVANCE SHEETS No. 446 (June 8, 1899).

have in certain States of the Union, an official copy of the statute is inclosed as an exhibit with this report.* The provisions of the law are substantially as follows, it being premised that it applies to the Kingdom of Prussia, except the Hohenzollern Crown lands and the Island of Helgoland, and that all taxes collected under it revert to the treasury of the commune or municipality in which the store is located:

Paragraph 6 of the statute divides the merchandise to be sold into four groups, as follows:

(1) Groceries and colonial produce, food products and drinks, tobacco and manufactures thereof, smokers' articles, apothecaries' supplies, colors, drugs, and perfumery.

(2) Yarn and twine, upholstery goods, mercery, drapery; woven, knit, and embroidered goods; underclothing of all kinds, bedding and furniture of all kinds, curtains, carpets, and all material used in interior household decoration.

(3) Household, kitchen, and garden utensils and implements; stoves, glassware, porcelain, earthen and stone ware, upholstered furniture and materials thereto pertaining.

(4) Gold, silver, and other jewelry; objects of art or luxury, bric-a-brac, articles of paper or papier-maché, books and music, weapons, bicycles; articles of sport, riding, driving, and hunting; sewing machines, toys; optical, medical, scientific, or musical instruments and apparatus.

Every store, bazaar, or warehouse which shall sell articles belonging to more than one of the above groups, and of which store the aggregate sales amount to more than 400,000 marks ($95,200) per annum, shall pay a special tax graduated according to the total amount of its annual sales, as follows:

Yearly sales.	Annual tax.	
	Marks.	
400,000 to 450,000 marks ($95,200 to $107,100)	4,000	$952
450,000 to 500,000 marks ($107,100 to $119,000)	5,500	1,309
500,000 to 550,000 marks ($119,000 to $130,900)	7,500	1,785
550,000 to 600,000 marks ($130,900 to $142,800)	8,500	2,023
600,000 to 650,000 marks ($142,800 to $154,700)	9,500	2,261
650,000 to 700,000 marks ($154,700 to $166,600)	10,500	2,499
700,000 to 750,000 marks ($166,600 to $178,500)	11,500	2,739
750,000 to 800,000 marks ($178,500 to $190,400)	12,500	2,975
800,000 to 850,000 marks ($190,400 to $202,300)	13,500	3,213
850,000 to 900,000 marks ($202,300 to $214,200)	15,000	3,570
900,000 to 950,000 marks ($214,200 to $226,100)	16,500	4,327
950,000 to 1,000,000 marks ($226,100 to $238,000)	18,000	4,284
1,000,000 to 1,100,000 marks ($238,000 to $261,800)	20,000	4,760
1,100,000 to 1,200,000 marks ($261,800 to $285,600)	22,000	5,236

*Filed for reference in the Bureau of Foreign Commerce.

and so on, for every additional 100,000 marks ($23,800) sold, 2,000 marks ($476) additional tax.

This law has been enacted for the purpose of equalizing the advantages which large bazaars, department stores, and cooperative retail establishments enjoy over the minor and middle-class merchants whose business is restricted to a few articles and does not exceed a yearly turnover of 400,000 marks ($95,200). At one time during the debate, it was proposed by the House of Lords—the upper chamber of the Prussian Parliament—to exempt the stores which belong to and serve army and navy officers and civil officials; but this was denounced by the House of Deputies as an odious act of class legislation, in favor of a specially privileged caste, so that the lords were forced to yield and the law was enacted in its present form. Finance Minister Miquel, the ablest and most adroit master of taxation in Germany, who has stood as sponsor for the new act during its passage through the Diet, has issued the following declaration explaining its purpose and portraying its results when accepted in good faith and impartially enforced:

> It will depend upon the mercantile and industrial classes themselves whether this law shall fulfill for them the benevolent purpose of the lawmakers. It will be their task to promptly create and organize with self-helpful motives such associations and installations as are calculated to best increase their power of competition with the department stores. They will have to provide, especially through the organization of purchasing and selling societies, for cheap purchases and profitable sales. They will have to stand firmly on the principle of cash purchases and sales and neither accept goods nor sell them on credit.
>
> In this respect also will the system of organized self-protection offer a wide field of usefulness. The State has already, through the creation of a central bank for the finances of organized guilds, done what it could properly do to promote the interests of the smaller merchants and industrial classes. It will be the task of the middle-class dealers, who have suffered from the competition of the great department stores, to improve the opportunity created by this new tax, to strengthen themselves by improved equipment and management for competition with the large establishments. The State has done its part; it now rests with the mercantile and industrial middle classes, through intelligent, energetic self-help, to secure themselves against the competition of large capital.

These are brave words, and every friend of the German people will hope that the aspirations of the Finance Minister concerning the practical effects of the new law may be fulfilled by the event. But there are not wanting many intelligent observers who are extremely skeptical as to the result. The department stores and other large retail houses have six months in which to prepare for the new regulation. It is believed that many of them will confine their future trade to articles included in one of the foregoing categories, and thus evade the new tax. Should they do this, their stocks on hand of goods belonging to other groups will be sold out at bargain counters before January 1 at whatever they will bring, and this, it is predicted,

will supply the demand for certain articles and depress the market for some time to come.

Moreover, a large number of the smaller merchants fail to see how the new law, which simply taxes the large concerns 1 to 2 per cent additional on their sales and turns the proceeds of such taxation over to the communal and city treasuries, is to help the middle-class merchants and their customers to unite and pay cash for their goods, which they have heretofore bought and sold on credit. The big stores, say these critics, will either add the amount of their tax to the prices of their goods or strive by increased sales to make up the amount. The line between the taxed and untaxed stores will be drawn more sharply than before, and the old struggle will remain between organized capital, which can always buy cheaply for cash in large quantities, and the merchants of moderate means who must buy to a greater or less degree upon credit and must sell before they can pay. The weak point which causes most apprehension is that this enactment opens the way for special taxation of all kinds of large industries and landed possessions. At a time when every interest and class is clamoring for protection, it encourages the demand for special legislation affecting specialized branches of industry and trade. With all this in view, so conservative a journal as the Vossische Zeitung declares that the new statute is "economically and politically the worst law that has been enacted since the memory of man," and adds that "when it shall have completely failed of its purpose, the fault will not be that of the smaller merchants and their customers, but of the Government which has enacted the law and hastens to wash its hands of the results."

This is, however, only an opinion and may be wholly premature and misleading. Justice to the classes who have asked for this enactment and to the Government which has granted it demands that the wisdom and effectiveness of such legislation shall be tested and judged by the results of actual experience.

FRANK H. MASON,
Consul-General.

BERLIN, *June 21, 1900.*

THE ELBE-TRAVE CANAL.

Consul Hill writes from Amsterdam, June 20, 1900:

The new Elbe and Trave Canal, which has been building five years and has been completed at a cost of 24,500,000 marks ($5,831,000)—of which Prussia contributed 7,500,000 marks ($1,785,000) and the old Hansa town of Lübeck, which is now reviving, 17,000,000 marks ($4,046,000)—was formally opened by the German Emperor on the 16th instant. The length of the new canal—which

is the second to join the North Sea and the Baltic, following the Kaiser Wilhelm Ship Canal, or Kiel Canal, which was finished five years ago at a cost of 156,000,000 marks ($37,128,000)—is about 41 miles.

The available breadth of the new canal is 72 feet; breadth of the lock gates, 46 feet; length of the locks, 87 yards; depth of the locks, 8 feet 2 inches. The canal is crossed by twenty-nine bridges, erected at a cost of $1,000,000. The span of the bridges is in all cases not less than 30 yards and their height above water level about 15 feet. There are seven locks, five being between Lübeck and the Möllner See—the highest point of the canal—and two between Möllner See and Lauenburg-on-the-Elbe.

The following details have been received from Vice and Acting Consul Monaghan, of Chemnitz, under date of June 16, 1900:

The direct road from the Elbe to the Baltic Sea offers a great saving both in time and money. Everything has been calculated for a large increase of trade. This can be seen from the fact that now the towing will be done by three tugs; later, by electrical appliances. The passage requires from eighteen to twenty-one hours. The finishing of this canal should make great changes in the commercial relations between the lands bordering on the Baltic Sea. Wares which up to this time could not be shipped, on account of the charges for freight on the railroads, can now be brought in.

NEW GERMAN PROCESS OF WELDING PIPES.

At the congress of the Saxon associations of engineers and architects just held at Leipzig, Mr. Max Schiemann, of Dresden, delivered a lecture, accompanied by experiments, on the "Goldschmidt process for obtaining high temperatures and its practical application." He compared this new process with those hitherto used for heating metals for welding. He showed by experiments the new method of welding cast-iron gas pipes of 2 to 4 inches in diameter, and demonstrated the very simple application of the process and its result. Briefly stated, it consists in mixing powdered aluminium with oxide of iron and adding to it an easily ignitable substance. This powder is put into a clay crucible and then ignited by means of a match. The resulting chemical action renders the mixture liquid, and this liquid is then poured around the place to be welded. The object assumes a white heat, and the welding is done by a very simple apparatus. The welded places show the same firmness as the original

piece, and manifold application of the method is possible. In the near future, it is proposed to weld the rails of the electric tramway at Dresden, which has already been done in other cities. The speaker welded rails before the audience, and the experiments were pronounced very successful, especially on account of the simplicity of the process. It is considered a very important discovery, and great hopes are entertained for it.

RICHARD GUENTHER,
Consul-General.

FRANKFORT, *May 28, 1900.*

THE LAPIDARY INDUSTRY OF BIRKENFELD.

The cutting and polishing of precious and half-precious stones forms the chief industry of the little principality of Birkenfeld, up among the hills of the Nahe River, and gives employment to over 5,000 persons.

Although an improved factory system is gradually superseding the laborious methods of former times, there are nevertheless plenty of the old polishing and cutting works, which bear evidence to the lives sacrificed to this industry.

In the early days of the trade, agate quarries existed in the near-by hills, and this half-precious stone was cut and polished by a very laborious method, which is still practiced, although the agate quarries have long been exhausted and the raw material—as well as amethyst, jasper, opal, topaz, etc.—has been imported (since about 1834), chiefly from Brazil, whence it is shipped to this out-of-the-way place to be cut, shaped, and polished for the jewelry trade.

The usual method employed in cutting and polishing these stones is the following:

In a rude hut by a stream, which furnishes the power, four large grindstones about 4 feet in diameter are so fixed that their axes are only about 1 foot above the floor, into which a slit is cut, so that part of the grindstone is below its level. This lower portion passes through the water, thus keeping the stones constantly wet.

The operator has a bench or block of wood about 18 inches high, hollowed out to receive his chest and body. On this bench he lies at full length, and with his fingers holds the small piece of opal, amethyst, or other stone which is to be cut, against the grindstone, slightly above the level of the floor. In this position the men lie from morning to night, day after day. Consumption usually carries them off at an early age, but other men are found to follow this vocation, as the earnings are comparatively high. The operator usually owns his grindstone, or at least half of one. This represents

an investment of about $500, and a skillful lapidary can earn from $15 to $25 per week. He does not usually cut and polish stones on his own account, but generally contracts with manufacturing jewelers, who furnish him the stones in the rough, to cut and polish at a certain price per gram. As the stones, even in the rough, represent quite an outlay of money, the honesty of the workman must be greatly relied upon, for nobody can say in advance how many grams of finished stones a certain piece of opal, amethyst, or the like may yield.

Besides these half-precious stones, precious stones such as diamonds, etc., are also cut and polished there; but this is an entirely different branch of the industry and is chiefly carried on in factories with modern machinery.

Another branch of the industry in these parts is the cutting of cameos.

Pearls are also polished, drilled, and cut and shipped in large quantities to all countries, including the United States, invoices covering single shipments of the value of $60,000 having been certified to at this consulate.

It is strange that this industry still flourishes in the little villages of this principality—removed from railroad communication and far away from the sources of supply of the raw material.

WALTER SCHUMANN,

MAINZ, *May 22, 1900.* *Consul.*

THE TELEPHONOGRAPH.

The "telephonograph," a new invention in which the German Postmaster-General, Von Podbielski, is much interested, is a combination of a telephone and a phonograph for the purpose of recording messages received during the absence of the operator. This apparatus was invented by a Dane by the name of Paulsen. The person called up has only to hold the trumpet to his ear upon returning to the office, even after an absence of days, to receive the message. Many inventors have tried to effect such a combination, but all failed on account of the difficulty of transferring the message onto a wax cylinder.

Instead of a wax cylinder, Paulsen used a flexible steel band in his phonograph, which is much simpler in construction than the Edison phonograph. Messages are much more easily removed from the steel band than from the wax cylinder. It is wound on two spools, moving quickly from one to the other, and coming in contact

with a very small electro-magnet, switched into the circuit, which affects the steel band in such a way as to record on it any sounds that may penetrate to the phonograph. It is only necessary to cause the steel band to repass the magnet in order to have the sounds repeated. Each vibration of the electro-magnet produces a corresponding vibration of the steel band. In order to remove a message from the steel band, a magnet is passed over the surface on which the message was recorded.

The tests recently made in the engineering department of the Copenhagen Telephone Company, whose service the inventor has recently entered, were surprisingly successful. Up to the present time, the apparatus records a song better than a spoken message; but the latter is nevertheless quite clear, and the experts who have been making experiments in cooperation with the inventor declare that it is only a question of time until the telephonograph will repeat a message as clearly as it can be heard through the most improved telephone.

BRAINARD H. WARNER, Jr.,
LEIPZIG, *May 22, 1900.* *Consul.*

AMERICANIZING THE GERMAN SHOE TRADE.

The following highly interesting and suggestive article is translated from the last number (May 31) of Der Schuhmarkt, the alert, clever, and aggressive organ of the German shoe and leather industries:

Although the German shoe-manufacturing industry has thus far succeeded in meeting victoriously the competition of foreign countries, there now threatens a new rivalry the dangers of which they must take into serious account.

It is well known that the American manufacturers have for years past striven to increase their exports to Germany, but have encountered the difficulty that the retail dealers here could not keep up their stocks by promptly filling in the exhausted sizes and numbers. Even in respect to shoes, it has been found impossible to have the supply depot in New York and the retail stores in Berlin. But now the shoe-trade journals announce that the English firm Manfield, which manufactures by American machinery, methods, and factory system, and which has about forty retail branch stores in England and France, is preparing to open similar retail stores in Berlin, Hamburg, and other German cities. What do the German shoe dealers propose to do about this? To call for a protective duty would be of little or no avail. It will be better to consider the matter calmly and work hand in hand with the German shoe manufacturers to avert the threatened danger. The products of the first-class American manufacturers are doubtless very elegant, but they are also very dear; a special feature of the American shoes is their long, slender model, which is preferred by many purchasers here, so that a longer form of shoe must be in general accepted by us. All this, however, can be more cheaply

provided by the German manufacturers, and, since they are here in the field, the German retail dealers have absolutely no need to render our shoe supply dependent upon America or England. The most effective protection against foreign competitors is to learn their advantageous methods, and the beginning of this has been made by the notably alert and enterprising shoe factory of Lichtenstein & Co., in Düsseldorf. With the aid of an equally enterprising and well-known last factory, the managers of the above-named firm have introduced for the coming season's trade a large number of original American forms, and have already produced their first samples, which for the purpose of comparison they have copied from the product of a first-class, very expensive American manufacturer. Laymen and experts who have seen the original and the copies side by side have declared the latter to be the more elegant and beautiful. Other enterprising shoe manufacturers will soon follow this example, and then our dealers will not need to be alarmed about the branch shoe stores of Manfield.

Thus far the Schuhmarkt. It simply confirms what has been known and stated in consular reports for years—that American shoe machinery and lasts, with American-made shoes as models to be copied by workmen directed by American-trained foremen, are rapidly and surely revolutionizing the shoe-manufacturing industry of Germany, and that one important effect of the hitherto tentative and limited export of American-made shoes to this country has been to educate the popular taste to a higher standard and compel the adoption of American machinery and methods by German manufacturers. The practical impossibility of keeping up a retail shoe stock in Germany by small and frequent orders on American makers was recognized and pointed out years ago; and, as this method of sorting up is universal between shoe retailers and manufacturers in Germany, it was explained and reiterated that, in order to achieve any important and permanent success, American exporters must either establish a wholesale depot in this country or open their own retail stores in Hamburg, Berlin, Leipzig, Frankfort, and other principal cities. But neither of these things has been done, and an English firm, manufacturing by American methods, now comes to reap what our timid exporters have sown.

FRANK H. MASON,
Consul-General.

BERLIN, *June 5, 1900.*

THE UTILIZATION OF FRUIT IN GERMANY.

The question of the utilization of fruit is being much discussed in interested circles in Germany. The reason for this is not to be sought in the supposition that there has been an overproduction or that producers have had any difficulty in disposing of all the fruit they could raise. On the contrary, the amount of fruit produced in Germany is much too small to meet the existing demand. The

desire to increase the use of fruit, and especially of fruit products, is based on three motives:

(1) For sanitary reasons, it is deemed wise to encourage Germans to eat more fruit and fruit products, prepared in as many attractive forms as possible. This may be a sincere recommendation on the part of physicians, but its use as an argument by sellers of fruit is probably due not entirely to disinterested concern in the physical condition of the German nation, which certainly does not seem to warrant anxiety at present. If individuals can, however, be persuaded that an increased consumption of jam will favorably affect their mental, moral, or physical development, this may materially assist an important agricultural interest and at the same time have a stimulating effect on the sugar industry, which is now threatened by foreign competition and retaliation on the one hand and by overproduction at home on the other.

(2) As there is already an underproduction of fruit, an increase of its utilization will have a tendency to raise prices, and this will, of course, increase the profits of farmers.

(3) An increase in the use of conserves, marmalades, etc., means an increase of consumption of sugar in the home market, and this is earnestly desired for the purpose of lessening the surplus production, which can now be disposed of only through exportation.

A German axiom is that each branch of industry must constantly seek to increase its profits by intelligently providing for the utilization of its products and endeavoring to find new means for extending sales. No one probably thought, when the cultivation of sugar beets was begun, that this industry could ever influence and contract other branches of agriculture as has been the case. This has been rendered possible only by a scientific and intelligent policy and by subordinating, through united action, temporary individual interests to a determination to consider always and only the general welfare and development of the industry. Instead of prostituting a valuable industry for the aggrandizement of a few individuals, the German idea has been to do everything possible to establish it on a firm basis and thus provide a secure means of existence in Germany for hundreds of thousands of persons who might otherwise be forced into emigration by their necessities.

As has been pointed out above, it is believed that fruit culture and the sugar industry have interests in common, and that an extension of the German marmalade industry will be of great value to others than those directly concerned.

This question has been investigated for the German Agricultural Society by Dr. Paul Degener, from whose report the following statements are indirectly taken:

ENGLAND'S IMPORTATION OF FRUIT.

Year.	Apples.	Pears.	Other fresh fruits.	Conserved fruits.
	Bushels.	*Bushels.*	*Bushels.*	*Pounds.*
1893	3,460,000	900,500	934,000	34,510,000
1894	4,969,000	1,291,000	1,137,000	42,670,000
1895	3,292,000	397,000	1,129,000	37,458,000
1896	6,177,000	470,000	1,267,000	48,943,000
1897	4,120,000	1,042,000	1,494,000	53,142,000

In 1897, England accordingly imported 6,656,000 bushels of fresh fruit. Of this amount, Germany supplied 27,000 bushels of apples, 23,000 bushels of pears, and 110,000 bushels of other fruit. The country nearest to England—a country which produces the best apples in the world, a country specially fitted by climate and position for fruit culture, a country in which many people are looking for new and profitable sources of income—this land supplies about three-fourths of 1 per cent of England's imported apples, while in 1897 the United States furnished 1,808,000 bushels and Canada 1,021,000 bushels, or 70 per cent of the entire amount needed.

ENGLAND'S CONSUMPTION OF FRUIT.

Prosperity, due to its great foreign trade, has led to the increased use of meat as food in England. The consumption of vegetable products has in like manner increased in the land of the "beefsteak eaters," and much attention is given to athletic exercise for the development of the body. While in Germany the potato is largely the principal food, the Englishman eats green salads, vegetables, and fruit.

The importance of these foods lies in their carbon hydrates and vegetable-acid salts. So long as nutritive stuffs free of nitrogen are used, the muscles do not need to draw on the store of albumen in the body. While the alkali salts of natural and artificial mineral waters which Germans use are quickly neutralized in the stomach, vegetable-acid salts oxidize to carbonic-acid salts and make the blood and urine more alkaline. In this lies the value of the use of sugar and fruit, and England has recognized this. While, on the average, each person in England uses annually 40 kilograms (88 pounds) of sugar, the average in Germany is less than 10 kilograms (22 pounds). The difference in the use of fruit is about the same. Wherever it is possible to use sugar and fruit in food, this is done in England. There, jam and marmalade, unmixed or in the form of pies, tarts, etc., are eaten after all meals, and especially at breakfast. A workman regards a fruit pie as a sufficient dinner. Sweet biscuits and cakes are manufactured in immense quantities. Temperance eating houses, the Aërated Bread Company, etc., offer tea and chocolate with fruit and pies, instead of beer and alcoholic drinks. In German eating houses and hotels, drinking is almost compulsory.

The biscuit factory of Huntley & Palmers, at Reading, employs 6,000 workmen and ships daily forty to fifty double wagon loads, each of 6,000 kilograms (over 13,000 pounds). Supposing only 25 per cent of this to be sugar, the amount of sugar used in a year must be at least 202,500 double centners (over 20,000 tons).

According to the statement of Mr. Matthieson, director of the jam factory of Clarke, Nickolls & Coombs, 400,000 tons of jam containing 1,250,000 double centners (225,000 tons) of sugar are produced annually in England, while the entire industry uses altogether over 3,000,000 double centners (300,000 tons). In jam and marmalade alone, each person in England uses daily 17 grams of sugar. If Germany can, through the increased use of domestic fruit products, raise its average to 10 grams, this will cover 10 per cent of the entire German sugar production.

THE MANUFACTURE OF JAM AND MARMALADE IN ENGLAND.

The fruits are first stemmed in machines provided especially for the purpose; then they are cooked soft in a copper pan in order to free them from seeds and skins by passing them through other machines. This cleaned fruit is thickened by further cooking and set aside in stoneware vessels until needed. An advantage of this storing of partially prepared jam is that the factories can work uninterruptedly through the fruit season and lay aside other work for a less busy time. This is rendered possible by the sterilizing of the fruit by cooking. If time permits, the cooked fruit is sweetened with clarified sugar, fifty-six parts of sugar being used for sixty parts of fruit. This ratio varies, however, as allowances must be made for acidity, sweetness, flavor, etc. In order that the jam may remain soft enough, which would be hindered by a crystallizing of the sugar, after it is finished 10 per cent of capillary sirup is added. In addition to this warm process for the manufacture of jam, there is also a cold one. The warm process renders possible the utilization of unripe fruit without causing danger to the health of the consumer. The cold process is used with ripe fruit. This method preserves the flavor, which is lost under high temperature and high pressure. The use of the word marmalade in England is confined to jams made of oranges and lemons which are cooked with their thin skins, whose pectin changes the jam into a mass resembling jelly.

WHAT CAN GERMANY LEARN FROM ENGLAND IN THE MANUFACTURE OF JELLY?

Germany already manufactures so-called apple butter and plum and pear marmalade, especially in Strassburg, Coblenz, and Metz. Most of this does not, however, deserve the name of fruit marmalade, as it is made from fragments left over from manufacture of dried fruit and fruit wine. A comparison of English and German wares will reveal the difference. The English marmalade is good fruit mush and sugar. The German consists of unappetizing fragments without any sugar. In England, 10 per cent of starch sirup is added; in Germany, 60 to 70 per cent, with its ingredients of sulphuric acid, dextrin, and gallisine. The Englishman will not even use 10 per cent of German watery potato sirup, as this injures the quality of his jam. He gets fine starch gum from America, because it is there made from maize, instead of potatoes; because there hydrochloric acid and oxalic acid are used, instead of sulphuric acid; and because the American capillary sirup does not, like the German, contain sulphuric acid. German marmalades are accordingly mostly food counterfeits and can not win a place in the world's markets.

REGULATION OF DISREPUTABLE COMPETITION IN THE JAM INDUSTRY.

As the consumer can not decide whether jam contains sugar or starch sirup, it might be well to force the manufacturer to make a declaration showing:

(1) Whether more than a certain percentage of sweetening material has been used.

(2) Whether fruit refuse has been used.

(3) Whether saccharine has been used.

This alone would not, however, be sufficient, as there is a difference between the prices of taxed sugar and starch sirup amounting to about 20 marks ($4.76) per double centner (220.46 pounds). As, according to English and German price lists, this difference goes into the pockets of dealers alone, there appear to be two ways of stopping disreputable competition, namely:

(1) The granting of a tax rebate on sugar used under official control in the manufacture of marmalades.

(2) The imposing of a tax on starch sugar or starch-sugar sirup used for this purpose.

PROFITS OF JAM FABRICATION.

To make 50 kilograms of strawberry jam, 30 kilograms (66 pounds) of strawberries are needed, which, according to the wholesale prices of 1898, would cost 9 marks ($2.14). To this must be added 13.40 marks ($3.21) for 28 kilograms (61.7 pounds) of taxed sugar and 1.20 marks (28.6 cents) for 5 kilograms (11 pounds) of capillary sirup. The English industry calculates for 1 double centner (220.46 pounds) of jam 20 marks ($4.76) for business expenses, wages, fire, advertisements, discounts, bad payers, etc. Thus 50 kilograms (110 pounds) would cost 33.60 marks ($8). According to the price list of Wittrock & Co., of Hamburg, strawberry jam made in Metz costs 75 pfennigs (18 cents) per German pound (half a kilogram), while the English marmalade of Keiller & Sons, of Dundee, costs 1.10 marks (25 cents), although in England it is sold at 44 pfennigs (11 cents). Deducting from the price per pound at the factory (36 pfennigs) 3 pfennigs for packing, we find that the German article containing taxed sugar costs exactly the same amount, while when untaxed sugar is used the amount of the tax (11.20 marks per double centner, or $2.67 per 220.46 pounds) remains as a profit. If we calculate at rates prevailing to-day, leaving the middlemen 6 marks ($1.43) as profit on the double centner and allowing the manufacturer 30 per cent for profit, we find that 50 kilograms (110 pounds) of strawberry marmalade is still worth not more than 46.60 marks ($11.10), so that in retail trade a pound should not cost more than 55 to 60 pfennigs (13 to 14 cents). These are the prices charged in England, where untaxed German sugar is used. From all this, it appears that Germany, with its cheap fruits, ought easily to compete with England in the jam industry.

GERMAN FRUIT CULTURE AND THE ENGLISH DEMAND.

Although ripe winter wares, especially apples, are most suitable for shipment to England, there is no need of Germany restricting itself to this one fruit. It would be no mistake to send to England in future all of the proposed increased production; for, irrespective of the fact that there can be no possibility of overproduction in Germany, which now spends annually nearly 65,000,000 marks ($15,470,000) for imported fruit, the consumption of fruit in the broad strata of the population can not be increased by compulsory measures. A change of this kind must be gradual. Nevertheless, Germany has a market in England, where, as a neighbor State, it has advantages which should enable it to compete with all other countries. Germany can easily win this field; for, according to a statement of the German consul-general at London, the Berlin market throws that of London entirely in the shade. The consul-general especially advises that attention be given to strawberries, raspberries, gooseberries, currants, and plums.

So long as England continues to use German untaxed sugar while the Germans are compelled to use taxed sugar, it will not be necessary for Germans to manufacture finished marmalade, as they can send across the channel their sterilized boiled fruit as easily as they send their sugar. In this way, they can avoid the hostility of the English jam factories and the German sugar tax as well.

The jam industry promises to have a favorable influence on fruit culture similar to that exerted by the sugar industry on the cultivation of beets. Consequently, intelligent attention must be given to the industry, the large fruit growers becoming also manufacturers and the small ones merchants. If this be done, the fabrication profit will mean also an increased soil profit. But to accomplish this, it is necessary that Germany must produce pure, unadulterated, and good wares; for no market can be won with any other sort. Germany can do this as well as England, as the science of jam fabrication lies not in secrets nor in machinery which can not be procured, but in energetic work with a distinct object kept clearly in view.

The introduction of the jam industry, if successfully accomplished, will supply many people with work throughout the entire year. In the manufacture of dried fruit especially, there is much waste material which, when fresh, can very advantageously be made into jam, as it is particularly rich in pectin. The increased manufacture of fruit wine and fruit juice will also be advantageous to the fruit industry; likewise the production of nonalcoholic drinks, jellies, etc.

The German fruit industry is still unimportant; but if the German farmer can be induced to devote more energy to this branch of his business, as he did a few decades ago in behalf of beet culture and the sugar industry, he can safely count on securing a profit which can be excelled in no other way. Then Germany will be able fearlessly to meet American competition in fruit and sugar.

GEO. H. MURPHY,
Vice-Consul.

MAGDEBURG, *June 1, 1900.*

CROPS IN GERMANY.

The condition of growing cereals in Germany on the 15th of June is indicated by the following official statistics which have just been published by the Ministry of Agriculture at Berlin. In these reports 1 indicates a full maximum crop, 2 good, 3 medium, 4 scant, and 5 bad. The decimals indicate gradations between these points, the higher the number the worse the outlook. The figures given show the condition of German crops on the 15th of May and June, 1900, respectively, and for purpose of comparison the corresponding report for June 15 last year.

Crop.	May 15, 1900.	June 15, 1900.	June 15, 1899.
Winter wheat	2.7	2.6	2.2
Spring wheat	2.6	2.5	2.5
Rye	3.2	3.1	2.5
Barley	2.6	2.4	2.6
Oats	2.7	2.5	2.7
Potatoes	2.6	2.5	2.8
Clover	3	3.2	2.7
Lucern	2.8	2.8	2.5
Grass	2.8	2.9	2.6

From this exhibit, the general average condition of German crops is below that of the same period last year, and this is especially true of rye, which is an important breadstuff in this country.

FRANK H. MASON,
Consul-General.

BERLIN, *June 21, 1900.*

GERMAN STONEWARE FACTORY.

Consul Harris sends from Mannheim a description of a German stoneware factory for sewerage and chemical industries at Friedrichsfeld, a small village about 6 miles from Mannheim on the railroad leading to Heidelberg. He says:

The plant, which has been in existence for many years, was almost wholly rebuilt in 1894 and 1895 and is now one of the largest and best-equipped plants of its kind in Europe. Its product, amounting to an average of ten carloads of finished ware per day, is shipped to many parts of Europe and to the United States. The plant covers several acres aside from the ground used for storage. Some of the buildings are three and four stories high; all are built of brick or stone and are of costly construction. Upwards of five hundred men are employed in the works. The company employs no women and but few boys. It has its own fire department, a system of insurance among its employees, and an arrangement by which medical attendance is furnished employees in case of sickness.

The product consists of various forms of stoneware used for sewerage purposes. The clay used is brought from the mountains near Heidelberg and other points close by. It is said to be of excellent quality and is found in great abundance. The kilns and ovens are of the types used in the United States, as also most of the machinery, so far as I could learn. The machines used in grinding the clay are unlike those formerly, and perhaps now, used in the sewer-pipe works in parts of the United States. The clay is here passed through three separate grinding machines of similar construction, consisting essentially of a series of heavy parallel, horizontal rolls having roughened surfaces, so constructed as to feed the clay between them and at the same time crush and grind it. Elevators and carrying devices are used throughout the plant. An electric plant furnishes light where artificial illumination is required. Blowing machines carry off the dust.

The sewer pipe made by the concern differs but little from that generally seen in the United States. The sections are, as a rule, longer than the American product. They are made with a thread-like groove extending five or six times around the pipe and beginning probably three-fourths of an inch from the smaller end of the pipe. This groove is from one-eighth to one-fourth of an inch deep, depending on the size of the pipe. There is a corresponding groove on the inside of the collar at the other end of the pipe. The managers tell me that sewer pipe is generally made in this form

in Germany, and that an asphalt filler is used in place of cement. They say that in the laying of pipe, there is sure to be more or less settling at the joints; that cement, if used, cracks and does not re-adhere, and leakage is likely to occur, while asphalt, being more elastic, yields to the settling without cracking. It is to be remembered that in Germany this pipe is much used in connection with domestic and other sanitary plumbing, where iron and lead pipe is used in the United States. Close-fitting joints, therefore, become a matter of special importance here.

To prevent the pipe from settling and getting out of place by lateral movement, a stoneware sill having a broad base and concave surface, with a radius corresponding to that of the pipe, is used. I am advised that these sills are specified in the contracts for much of the street sewerage in this Empire.

A large amount of sewer pipe of elliptical and egg form is used in Germany. This is also manufactured by the Friedrichsfeld company. This is, of course, laid with the side having the smaller arc of curvature down; in other words, as if the ellipse or the egg were standing on its small end.

Aside from the sewer pipe of the kinds described, the company manufactures a special line of ware of great variety and much more interesting. The trade in the United States will perhaps recall the company's exhibit at Chicago in 1893. This line includes tubs, vats, piping, accumulators, retorts, pumps, filters, faucets, distilling outfits, and other apparatus used in the manufacture and handling of acids and other chemicals, and in the construction of large galvanic batteries. As is well known, the manufacture of chemicals in Germany is a large industry and gives rise to a demand for apparatus of peculiar construction. No attempt will be made to describe this ware in detail. Much of it is for use in patented or in secret processes, in which technical knowledge would be required for accurate description. Some consists of large receptacles, in form much like the copper kettles frequently used by farmers in the United States for boiling cider. These vessels vary in capacity from a few quarts up to 1,500 liters, or nearly 400 gallons; some are plain, without openings or attachments of any kind; some have openings with stoneware stopcocks; others have filtering devices connected with them. The walls of these vessels are quite thin, as compared with the larger sizes of sewer pipe. Many resemble huge dishes and cooking utensils, the sides and bottoms presenting a smooth, glossy surface with a rich brown color and emitting the clear metallic ring characteristic of perfect ware.

Some of the special forms are quite intricate, and it would seem a matter of much difficulty to make and burn them without a large

percentage of loss. Just how great this percentage is, I did not learn. Acid pumps are made and equipped with small electric motors, in which cylinders, pistons, and valves, all of stoneware, are handsomely burned. I was shown an apparatus for distilling some chemical product. The apparatus is, in fact, an ordinary still, in which the "worm" is one continuous stoneware pipe, perhaps 2½ inches in diameter and coiled in the usual way on a diameter of some 2½ feet. The pipe in this apparatus is 19 meters, or more than 60 feet, in length. The apparatus stands perhaps 5 feet high. The casing by which the coils of pipe, one above the other, are kept in place is of stoneware; the whole apparatus being, in fact, made and burned as one piece and apparently without check or flaw in the making or burning.

Near the last-described apparatus was a still larger one, known as a reaction tower, used for the absorption of gases by liquids, as, for example, in the manufacture of nitric acid.

In some of the apparatus shown at the factory, vertical pipes are arranged somewhat like the tubes in a vertical boiler, or in steam radiators for heating purposes. Of course, many of these forms are made largely by hand and require much skill and patience and the greatest care in handling before they are burned. One large receptacle, nearly or quite 8 feet high, probably 4 feet in diameter at the largest part, will hold 5,500 liters, or more than 1,450 gallons. This huge piece of ware is of a rich brown color and is certainly a handsome product of the potter's art. It bears an imprint of the company's name burned in one side and will form part of their exhibit at Paris.

The tubs, troughs, trays, and other ware designed for use in electroplating and other arts requiring large galvanic batteries are made in many sizes and forms, the largest holding nearly 200 gallons. These receptacles, although comparatively light in weight, do not show indication of being warped or twisted in burning. Either the clay used or the method employed in manufacturing and burning this ware, or both, give it a peculiarly well-glazed surface, free from roughness or flaws.

WORLD'S PRODUCTION OF COPPER: CONSUMPTION IN GERMANY.

Vice-Consul Monaghan writes from Chemnitz, May 23, 1900:

The following table, taken partly from official and partly from private statistics, gives some very interesting facts, as it shows how completely North America surpasses other lands in the production of copper. It shows, also, that the production is hardly equal to

the demand; for, in spite of increased prices, it has advanced only a little more than 9 per cent.

Output.

Country.	1898.	1899.	Increase.		Decrease	
	Tons.	*Tons.*	*Tons.*	*Per cent.*	*Tons.*	*Per cent.*
Algeria	50	.....	.....	.....	50	100
Argentine Republic	125	65	.....	.....	60	48
Australasia	18,000	20,750	2,750	15.3	.....	.....
Austria-Hungary	1,540	1,505	.....	.....	35	2.3
Bolivia	2,050	2,500	450	21.9	.....	.....
Canada	8,040	6,732	.....	.....	1,308	16.3
Cape Colony	7,060	6,490	.....	.....	570	8.1
Chile	24,850	25,000	150	0.6	.....	.....
Germany	20,085	23,460	2,375	11.3	.....	.....
England	550	550	.....	.....	.....	.....
Italy	3,435	3,000	.....	.....	435	12.5
Japan	25,175	27,560	2,385	9.5	.....	.....
Mexico	15,668	19,335	3,667	22.9	.....	.....
Newfoundland	2,100	2,700	600	28.6	.....	.....
Norway	3,615	3,610	.....	.....	5	0.1
Peru	3,040	5,165	2,125	69.9	.....	.....
Russia	6,000	6,000	.....	.....	.....	.....
Spain and Portugal	53,225	53,720	495	0.9	.....	.....
Sweden	480	520	40	8.3	.....	.....
North America	239,241	265,156	25,915	10.8	.....	.....
Total	434,329	473,818	39,489	9.1	.....	.....

In regard to the consumption of copper in Germany, Consul-General Guenther, of Frankfort, under date of June 7, 1900, says:

The consumption of copper in Germany showed very little increase last year, although it grew very rapidly during the five years 1894–1898, inclusive. The total supplies for consumption last year, according to the figures collected by Messrs. Aron Hirsch & Son, of Halberstadt, were 102,618 metric tons, against 101,519 tons in 1898 and 62,955 tons in 1894. The total imports into Germany for 1899 were 89,746 tons and the exports 20,304 tons. The stocks held in Germany at the close of the year were very low.

CHEMICAL FOODS IN GERMANY.

In opposition to the determined vegetarians who condemn all animal food, there is a growing number of physiologists who insist that abstention from meat, if continued for ages and generations, is responsible for the feebleness and low intellect of certain races. Chemists are becoming more and more anxious to find new sources of nitrogenous foods, and the artificial-food industry has developed widely in Germany, chiefly in the large works which supply dyestuffs, for which albumen is an important material.

The artificial foods are mostly mixtures of more or less secret composition. Thus, the tropon of Professor Finkler, of Bonn, whose

works are at Mühlheim, consists of one-third of animal and two-thirds of vegetable albumen. Albumenose is a frequent constituent of those foods. By albumenose is understood a preparation which, as regards solubility, occupies a position intermediate between the original animal albumen and its peptone.

The managers of the Elberfeld Farbenwerke have made a hit with their somatose, which is such an albumenose, and have quite recently brought out the more economical tannin and milk somatose, which may become a very important food for the masses. This latter preparation utilizes the casein of the milk.

The nutrose of the dye works at Höchst, the eukasin of Salkowsky, the sanatogen of Bauer & Co., of Berlin, contain all the casein compounds with sodium or ammonium.

OLIVER J. D. HUGHES,

COBURG, *May 17, 1900.* *Consul.*

STREET-CAR STRIKE IN BERLIN.

About 5,000 street-car employees of Berlin are striking. They demand that wages for drivers and conductors be fixed at 100 marks ($23.80) per month, to be increased to 150 marks ($35.70) in five years; for car cleaners, stablemen, switchmen, daily wages of 3.50 marks (83⅓ cents), to be increased to 4.50 marks ($1.07) in four years; the hours of a day's labor to be nine, including two pauses for rest of three-fourths of an hour in all; a free day with full pay to be given each week, and for every employee who has been with the company for more than six months an annual vacation of ten days; the stopping time at the terminal stations to be twelve minutes.

They demand that the pension fund shall be in force not later than July 1. The question of being entitled to be pensioned shall be left to a committee composed in equal numbers of representatives of the employees and of the directors of the company. New employees shall be taken from the central union.

An agreement has been reached on the following conditions: The pension fund will be in force on July 1; the hours of labor shall be nine per day for drivers and eleven for conductors; a committee will be established at each station for the purpose of apprising the directors of the wishes of the employees and to act as arbitrators; wages will begin with 85 marks ($20.23) per month, increase to 90 marks ($21.42) after six months, and rise till after twenty years' service the maximum of 120 marks ($28.56) has been reached. Extra hours will be paid for at the rate of 50 pfennigs (12 cents).

RICHARD GUENTHER,

FRANKFORT, *May 22, 1900.* *Consul-General.*

MUNICIPAL OWNERSHIP OF STREET RAILWAYS IN HALLE.

Vice-Consul Murphy transmits from Magdeburg, May 12, 1900, a clipping from the Magdeburg Zeitung (translated) relative to the proposed purchase of the street railways of Halle by the municipal government. Halle is a city of about 140,000 inhabitants. The clipping reads:

The city government intends to purchase the rights and property of the electrical company which now controls the street railways of Halle. This company's concession would otherwise remain in force until 1929. The development and operation of street railways, the most important means of communication in a city, can no longer be permitted to be dependent upon the private interests of a money-earning corporation. Moreover, it is one of the duties of a modern municipal government to avoid the increase of direct taxation by securing for the municipal treasury the profits of public institutions in which the citizens of the town have a personal interest, and which affect both their comfort and their business. Electric street-car lines operated by the town will, moreover, increase the profits of the municipal electric plants. The present time accordingly affords a favorable opportunity for the city government of Halle to secure control of the street-car lines, especially as, owing to the compulsory completion of several unprofitable branches and to the necessity of making certain repairs, the private company's dividends sank in the past year to only 4 per cent. The negotiations with the electrical company resulted in its offering to sell its property and rights to the municipal government for 2,850,000 marks ($678,000). This offer appearing too high to the magistracy, it sought the advice of two experts. The report of one of these (Dr. Jung, of the Magdeburg electrical works) treated in a general way the question of the advisability of the purchase, which it strongly recommended. The second report was made by Over Engineer Poetz, of the Hamburg-Altona Street Car Company. The price which Mr. Poetz decided to be reasonable was 2,500,000 marks ($595,000). The attempt to induce the company to accept this amount has so far failed, the only reduction which it is willing to make being in the form of liberal terms of payment. Nevertheless, the municipal government's street railway committee decided almost unanimously to urge the magistracy to complete the purchase for 2,500,000 marks ($595,000), one-third payable October 1, 1900, and the remainder in two annual installments with 4 per cent interest. This suggestion has been adopted by the magistracy, with only slight modifications. It is not yet known whether the electrical company will be willing to accept this offer, which is 350,000 marks ($83,000) less than the price which it suggested.

RAILROAD ACCOMMODATIONS IN CENTRAL EUROPE.

As the present summer will witness a great exodus of travelers from the United States to the international exposition at Paris and to Europe in general, a few words concerning some of the accommodations and conveniences of travel in central Europe may be of interest and value.

As is probably known, the railroads of Prussia and Saxony carry four classes of passengers, and those of southern Germany (and Europe generally) three classes. The rate of travel in the several classes is approximately 8, 6, 4, and 2 pfennigs per kilometer, a pfennig being about one-fourth of a cent and a kilometer approximately two-thirds of a mile.* The slow trains carry all classes of passengers, while the express trains carry only the first and second—sometimes the third. As traveling on a fast train is considered a luxury, an extra ticket, or Zuschlag, must be purchased for that privilege.

In general, tickets are valid on the day of purchase only; but excursion tickets good for three or ten days—the limit depending on the distance—can be obtained at all times at any station, and the ticket will be stamped "zurück," which means "return." The price of such round trip is always the price of the ticket for one way in the next higher class—*i. e.*, a ticket good for second class one way is valid for third class going and returning; one good for first class one way is good for second class both ways; but a round trip first class costs usually the price of first and third one way.

The above remarks pertain to travel in general, but there are certain special arrangements which can be taken advantage of and which accordingly deserve mention:

(1) In Wurttemberg, it is possible to purchase a ticket or pass for the railroads of that Kingdom only, valid for fifteen days, the prices being, respectively, 45, 30, and 20 marks ($10.71, $7.14, and $4.76). This would enable a traveler to travel as he pleases anywhere within the limits of the Kingdom and stop at any station as long as he pleases, all depending on the time of expiration of the ticket.

(2) In Switzerland, an arrangement like the above was introduced two years ago, immediately after the main lines of travel came into the possession of the Swiss Government, and is called the "general abonnement." A passenger desiring one of these tickets, which is in reality a pass for money paid, can obtain it at any station after having given due notice, which at the main stations need be but two hours in advance. These passes are issued for fifteen days, thirty days, three months, and for longer periods of time, the most popular form being the fifteen-day ticket, which is offered for 60 francs ($11.58) first class, 42 francs ($8.10) second class, and 30 francs ($5.79) third class. To obtain one of these general abonnements, it is necessary to present an unmounted photograph, which will be affixed to the ticket as a means of identification and to render the ticket nontransferable. Five francs (96 cents) must also be deposited, which will be refunded if the ticket is returned to any station within

* 100 pfennigs=1 mark (23.8 cents); 1 kilometer=0.62137 mile.

a half day after the limit has expired. When it is considered that the cost of a ticket from Basel over the St. Gothard Railroad to the Italian boundary line and return is almost as much as the price of one of these fifteen-day passes, the advantage of procuring a ticket by means of which the whole country can be visited and all except a few private and mountain railroads patronized is obvious.

For many years, Baden has been considered a model state in Germany, on account of its enterprise and generally progressive spirit. This is seen especially in the railroads, which are equal if not superior to any in Germany. Some years ago, Baden introduced a system of "mileage books," which is very popular among all classes of people. These books, called "Kilometerhefte," are sold for 60, 40, and 25 marks ($14.25, $9.52, and $5.95), respectively, for the three classes, good for members of a family or firm for one year from date of issue, and good for 1,000 kilometers (621.37 miles) on the State roads of Baden and for express trains, without extra fare. While 1,000 kilometers may seem a long distance, and hence the purchase of a kilometer book may seem inadvisable, such is not the case, as can be readily learned by studying the distances stated in the time table—*e. g.*, the distance from Heidelberg to Basel is 252 kilometers (156.5 miles) and from Basel to Constance 145 kilometers (90 miles), from which it immediately becomes evident that one kilometer book would not suffice for a party of three even when traveling one way only from Heidelberg or Mannheim to Constance via Basel. The cost for a trip of 1,000 kilometers in Baden on the express trains, purchasing tickets as you go, is 91, 64, and 45 marks ($21.65, $15.23, and $10.71), respectively. These books can be obtained at a moment's notice at any station; no photograph is required—simply the signature—and 1 mark (23.8 cents) will be given if the book is finally returned at any station.

A general round trip to suit the wishes of the individual traveler, who may plan for an extended journey greater than 600 kilometers (373 miles), can be arranged for by applying at any railroad office a few days before the start is to be made. A blank form indicating the various lines and distances intended to be patronized is filled out, and a special little ticket book, called Fahrscheinheft, is issued to meet the demands of the case. The cost will be found to be reduced by from 10 to 20 per cent, and the limit of the ticket is forty-five days if the distance to be traveled is from 600 to 2,000 kilometers, and if more than 2,000 kilometers (1,243 miles) sixty days. This form of ticket can be obtained for a round trip, not only including the states of Germany, but also Austria, Hungary, Switzerland, Scandinavia, and other countries of Europe.

E. THEOPHILUS LIEFELD,

FREIBURG, *May 22, 1900.* *Consul.*

TRAVELING RATES ON SCOTCH RAILROADS.

More than a year ago, the railroads of Scotland began a systematic effort looking to increasing their revenues. Prior to that time, there was practically no limit on the amount of personal baggage which passengers were permitted to take with them on either first or third class fares. About a year ago, however, an agreement was entered into by all the roads placing a limitation of 60 pounds of baggage on a third-class ticket and 120 pounds on a first-class ticket. Charge is made for overweight. At the beginning of this year, a certain class of "season" tickets known as "traders" were increased 50 per cent. This has been followed by still another, going into effect June 1, which increases the price of return fares 20 per cent. Third-class week-end tickets are increased from 3 to 20 per cent. The reason given in the main for these decided advances is the increased price of coal. The advance of $1.20 per ton which has taken place this year will mean an increased expense to one road alone of $1,650,000, estimating that this particular road uses 1,350,000 tons. In round numbers, it is estimated that it will cost the railroads of Scotland for coal this year quite $2,500,000 more than last year.

From the present outlook there does not promise, in the near future at least, to be any appreciable decline in the price of coal. The result is that all lines of manufactures have been affected in their profits, and very serious consequences are predicted if the extraordinarily high prices continue much longer.

SAMUEL M. TAYLOR,

GLASGOW, *June 1, 1900.* *Consul.*

FREIGHT AND INSURANCE RATES IN FOREIGN TRADE.

In view of the increasing efforts in the United States to find new markets for our products, the important items of freight and insurance rates should receive more attention from all those interested in the export trade.

Dealers abroad often receive catalogues and offers of goods, and apply to the consular officer for information regarding rates of freight and insurance. Cases exist in which manufacturers in the United States have asked the European correspondent to quote the freight from the United States to the port of arrival.

I am aware that all goods are not classed alike as regards freight; but chambers of commerce and commercial associations could have the different kinds of products classed so as to indicate whether they are to be charged by ton measurement or by weight. As the rates to Mediterranean ports do not vary much, an occasional quotation in the commercial newspapers would be of great utility. Manufacturers could then add to their catalogues, "For Mediterranean ports our goods are freighted as Class A" or "Class B." In the table of quotations published, the rates would appear as hereunder:

Class.	Genoa.	Marseilles.
A		
B		

There should be, at the head of the printed table, a summary description of the goods entering into each class. Thus persons receiving catalogues could at a glance and with much saving of time make up the cost of goods c. i. f. and gain an idea as to the possibility of business.

Rates of insurance do not vary greatly, and catalogues might also contain the rate to the different ports.

Foreigners who look over American catalogues invariably say, "And what is the freight?" To ascertain this requires special correspondence and loss of time, all of which might be saved by the plan suggested above.

In fact, I do not see why catalogues should not contain a pro forma invoice of goods, *i. e.:*

24 steel ranges	$480.00
Freight to ———	50.00
Insurance	3.50
Cartage and other charges	5.00
Costs, insurance, and freight at ———	538.50

If a page of a catalogue were dedicated to this innovation in tabulated form, manufacturers might quote a pro forma invoice of goods—say from New York to Hamburg, Bremen, Havre, Cherbourg, Bordeaux, London, Liverpool, Glasgow, Marseilles, Genoa, or Naples.

HAROLD S. VAN BUREN,
Consul.

NICE, *May 29, 1900.*

TRANSPORTATION TAXES IN SPAIN.

Minister Storer, of Madrid, under date of March 25, 1900, sends copy of the Gaceta de Madrid containing the new law providing for taxes on transportation in the interior of Spain. The chief articles are translated as follows:

ARTICLE 1. From the day of the promulgation of this law, the following will be suppressed:

(1) The provisional traffic tax upon the movement of passengers and merchandise created by the law of August 30, 1896.

(2) The charges on shipping and unshipping, embarking and disembarking of travelers, referred to by article 5 of the custom-house ordinances in force.

(3) The charges upon tariffs for travelers and certificates of entries of goods, corrected conformably to articles 10 and 15 of the law of estimates of June 28, 1898.

ART. 2. There shall be considered as annulled all existing measures, tariffs, agreements, and transactions, in order to make effective the taxes mentioned in the former article, excepting when the terms stipulated for its duration do not end the agreements which are actually in force.

ART. 3. A tax is created entitled tax of transportation, to which the following are subject:

(1) Passengers by sea of the first, second, and third classes; coin and merchandise in the same vessels either for import or export through the interior custom-houses.

(2) Travelers, coin, and merchandise of every class circulating in the interior of the Kingdom by land or by water.

ART. 4. The tax of transportation will be collected, as regards the part to which number 1 of the preceding article refers, subject to the tariffs added in the present law; and in that relating to number 2, it will be regulated by the following quotas:

Twenty per cent of the tickets of the travelers, in whatever kind of locomotion, land or river. Railway charges must be limited to 10 per cent when the companies reduce the ordinary price of the tickets 25 per cent or more; in publishing this reduction, the value of the ticket at the reduced price and that of the tax must be stated in the advertisement.

Five per cent of the price of transportation of merchandise, coin, commissions, corpses, and funeral effects, and excess of weight of provisions in the same kind of land or river locomotion.

ART. 5. The Government may make agreements for the payment of the tax of transportation as regards number 2 of article 3:

(1) In tramways and other like vehicles running over permanent tracks and not charging more than 0.50 peseta (9.6 cents) for the whole distance run, and in railway companies not charging more than 9.6 cents for tickets over the whole route, the cost of the agreement must not exceed 1.50 pesetas (28.9 cents) per 100 of the total proceeds of travelers' tickets carried in the fiscal year previous to the making of the contract, or 1 peseta (19.3 cents) for every lineal yard of the distance traversed, not counting the double track nor the cross roads, should there be any.

(2) Stage-coach enterprises or their proprietors and other means of locomotion with animal power conveying travelers over the ordinary roads will be credited up to 50 per cent of the tax which would correspond to all the travelers that the respective carriage holds. In case that the enterprises mentioned in this article

refuse the agreement, the Minister of Finance will determine the amount which should be satisfactory, which will be made effective by means of special orders.

ART. 6. The tax corresponding to the vehicles of two or four wheels, not passing over distances on the highways or ordinary roads of more than 35 kilometers (21.7 miles), will continue to be collected by means of licenses to the owners of said vehicles, the amount of said license being fixed by the Minister of Finance upon the basis of not less than 75 pesetas ($14.47) nor to exceed 250 pesetas ($48.25).

ART. 7. From the day of the promulgation of this law, the board of administration of the provisional tax on traffic established by article 10 of the law of August 30, 1896, will be abrogated. The administration of the tax will be under the charge of custom-houses as regards numbers 1 and 2 of article 3.

ART. 8. The tax of transportation will be collected from all travelers, coin, and merchandise conformably to the quotas established in article 4, the following excepted:

(1) Members of armed bodies and institutes traveling for the service or by virtue of superior orders.

(2) Government employees having the right to travel free and doing so in the performance of duty.

(3) Railway employees traveling over lines belonging to the companies by which they are employed and with written documents showing their duties.

(4) Children less than 3 years of age.

(5) Persons shipwrecked, poor persons in real distress, and prisoners traveling by the authority or with the assistance of the Spanish authorities.

(6) Official correspondence, coin, tobacco, stamped goods, war supplies, and other material transported at the charge of the State.

(7) Travelers, coin, and merchandise going from one point to another of the same bay.

(8) Empty receptacles of all kinds, including wagon reservoirs for the transportation of liquids.

(9) Travelers, coin, and merchandise landing without remaining in the ports and those unloaded and loaded by reason of damage to the vessels or other unavoidable cause.

(10) Provisions and stores for the provisioning of the vessel in which they are shipped.

(11) Supplies of travelers which, accompanying them, are transported by sea and enter or go out of the frontiers.

(12) Supplies and goods destined for the diplomatic corps.

(13) Coin and foreign goods passing in transit over Spanish territory; also coin and Spanish goods in transit from foreign territory returning to Spain.

(14) Vehicles, foreign horses, and animals enjoying temporary admission into the Peninsula and Balearics, conformably to the customs ordinances, and vehicles, horses, and Spanish cattle going to foreign countries under the same conditions.

(15) Travelers and merchandise which are excepted from payment by virtue of commercial treaties or contracts made by the Government.

ART. 9. The tax will be exacted as well on the lading as the unlading from the captains and from the consignees of vessels and from shipping agencies. Shipping companies and owners of vehicles of every class that devote themselves to the transportation of travelers and merchandise, by land or by water, will be held responsible for collecting the tax at the same time as the price of the ticket of the traveler, or of the transportation of the merchandise, and for placing in the coffers of the treasury the amount obtained by reason of said tax.

ART. 10. Travelers, coin, and merchandise going from ports of the Peninsula and the Balearic Islands to those of the Canaries and Spanish possessions, and

those coming from said ports to the Peninsula and Balearic Islands, will be subject to the tariffs established for transportation between these last ports.

ART. 11. The tariffs which are established or which hereafter may be established by provincial or local boards for harbor works can in no case exceed 50 per cent of the tax for transportation. There will continue, notwithstanding, to their full amount, the taxes which the boards at present time receive, which by the authority of the Government they have assessed, or will assess, with the guaranty that they will continue collecting them up to the complete termination of the works and the redemption of loans.

ART. 12. The Minister of Finance will make the rules and will adopt the means necessary for the fulfilling of this law.

Therefore: We order all courts of justice, justices, chiefs, governors, and other authorities—civil, military, and ecclesiastic—of whatever class and dignity, that they shall observe and cause to be observed, carry out, and execute the present law in every respect.

Given in the palace on the 20th of March, 1900.

THE QUEEN REGENT.

RAIMUNDO F. VILLAVERDE,
Minister of Finance.

Tariff for levying the tax of transportation to which number 1 of article 3 of the law refers.

PASSENGERS.

Description.	Class of passage.					
	First.		Second.		Third.	
First class.						
Passengers going from one port to another of the Peninsula and the Balearic Islands, or embarking for the Canaries and ports of the Spanish possessions, or coming from them:	*Pesetas.*		*Pesetas.*		*Pesetas.*	
Up to 200 miles of passage	1.00	$0.193	0.50	$0.096	0.25	$0.048
More than 200 miles	1.50	.289	1.00	.193	.50	.096
Second class.						
Passengers coming from foreign ports of the Mediterranean and the coast of Africa, up to the Cape of Bojador, or embarking thither	3.00	.579	1.50	.289	.75	.144
Passengers coming from or going to other European ports	4.00	.77	2.00	.386	1.00	.193
Third class.						
Passengers coming from or going to the ports of other countries	25.00	4.83	15.00	2.90	5.00	965

MERCHANDISE.

(For tons of 1,000 kilograms=2,204.6 pounds.)

Description.	Unlading.		Shipping.	
First class.	*Pesetas.*		*Pesetas.*	
Minerals of all kinds, mineral coal and coke, manures, lime, cement, paving stones, building materials of clay and cement	0.15	$0.028	0.15	$0.028
Common salt	.75	.14	.50	.096
Empty receptacles	Free.	.....	Free.	.....
All other merchandise and coin	.75	.14	.75	.14
Second class.				
Minerals, slags, and pyrites of iron	1.00	.193	.50	.096
Other minor metals	1.50	.289	1.50	.289
Mineral coal or coke	.50	.096	.50	.096
Lime, cement, paving stones, building materials of clay and cement	.50	.096	.50	.096
Iron pigs	2.00	.386	.50	.096
Lead in pigs and bars	2.00	.386	1.00	.193
Common salt	3.00	.579	.10	.019
Manures	2.00	.386	.25	.048
Cereals and wine	4.00	.77	2.00	.386
Empty receptacles	Free.	.....	Free.	.....
Other merchandise and coin	5.00	.965	2.50	.482
Third class.				
Minerals, slags, and iron pyrites	1.00	.193	.20	.038
Other metals	2.00	.386	1.00	.193
Mineral coal and coke	2.00	.386	.50	.096
Lime, cement, paving stones, building materials of clay and cement	.50	.096	.50	.096
Iron pigs	2.00	.386	.50	.096
Lead in pigs and bars	3.00	.579	1.00	.193
Common salt	3.00	.579	.10	.019
Manure	2.00	.386	.25	.048
Cereals and wine	5.00	.965	2.50	.482
Empty receptacles	Free.	.....	Free.	.....
Other merchandise and coin	7.00	1.35	5.00	.965

ELECTRICAL TRAMWAYS IN BARCELONA.

The following has been received from Consul-General Lay, of Barcelona:

I give below the names of the directors and chief contractors of a tramway line about to be built between Barcelona and Horta, a distance of 4 miles. The name of the branch line will be the Barcelona and San Andres Railway, work to be commenced in June.

Builders, Société Anonyme d'Entreprise Générale de Travaux, at Liege, Belgium.

President, Mr. Laloux.

Director-general, Mr. Thouet.

The chief contractor is F. H. Bagge, 14, Ronda Universidad, Barcelona, who imports his trucks, tubing for posts, and motors from the United States.

The wire is to be supplied by Hulheim, of Rhine, Germany; rails, from Belgium; car motors, by General Electric Company, Paris;

gas engines, Crossley, of Manchester; cars from Saragossa, Spain; accumulators, Tudor; dynamos, Industrial Electrico, Barcelona.

I find it very difficult to get any reliable information about projected roads, especially about those for which the equipment is being bought, as the directors, chief engineers, and other officials of new tramways are foreigners and have their headquarters in other cities. I would suggest, therefore, that our manufacturers write the Société Anonyme d'Entreprise Générale de Travaux, Liege, Belgium, in good time before the contracts are let at Brussels. The society is a very large one and has built many miles of tramways in Europe, and is constructing lines in Russia, I understand, at the present time.

In connection with the sale of electrical supplies and equipment in Barcelona, I would advise manufacturers of motors not used in connection with tramways and other small electrical appliances that their agents here must keep a certain stock of such articles on hand, as I am informed by several electrical importers of Barcelona that frequently English or German goods are sold because the purchaser can not wait for better American-made articles, which take so long to come from the United States.

ELECTRIC TRAMWAYS IN VALENCIA.

I wish to supplement my report dated April 7, 1900, on electric tramways in Valencia* by the further information that the negotiations for the transfer of the lines mentioned to Messrs. Thompson, Houston & Co. on a forty-year lease have been brought to a successful issue. The lessees are to substitute electricity for horse traction; to deposit as guaranty 750,000 pesetas (about $108,000) in French bonds; to pay a yearly rental of 160,000 pesetas (about $23,000) while receipts are below 800,000 pesetas. When receipts reach this figure, the lessors are to receive 5 per cent more, and when they reach 1,000,000 pesetas 10 per cent. The whole electric plant is to be the property of the lessors, who are also to possess the right to devote to public lighting any surplus electricity generated. Electric machinery and plant, as at present arranged, will be supplied by the General Electric Company of New York; but the cars will be constructed in Spain, where a few factories recently established turn out fairly good and cheap work, though in elegance, solidity, and comfort the cars are not equal to best foreign-made products.

HORACE LEE WASHINGTON,
Consul.

VALENCIA, *June 9, 1900.*

*ADVANCE SHEETS No. 733 (May 18, 1900); CONSULAR REPORTS No. 238 (July, 1900).

TANNING MACHINERY IN SPAIN.

Señor Casimiro Velasco, manager of a large establishment at Gijon, Spain, is convinced that the tanning industry of that country, in order to maintain its existence and prosperity in competition with France, Germany, and Italy, must be reorganized and equipped with the American machinery and improved methods which have revolutionized the European tanning industry during the past few years. Señor Velasco has at command a capital of 2,000,000 to 3,000,000 francs, which can be further increased if necessary, and is anxious to open relations with American manufacturers of tanning machinery and with experts who would be inclined to engage, either as employees or shareholders, in such an enterprise. He may be consulted by correspondence in English at the above address.

FRANK H. MASON,
Consul-General.

BERLIN, *June, 1900.*

AMERICAN WHEAT IN VALENCIA.

In the past year, prior to my occupancy of this post, attention was several times invited to the opening in this district for American wheat.* This does not seem to have been taken advantage of to any extent. The market is practically in the hands of Marseilles middlemen, who usually dispose of their occasional exports of American wheat to Valencia to a local combination of several brokers.

It is apparent that if this method can be pursued with profit, direct dealing would be more beneficial to our exporters, and it is believed that a sufficient demand exists to repay closer investigation.

I copy below a letter expressing the views of Mr. R. U. Cunningham, a Valencia merchant, on the subject:

I beg to call your attention to the possibility of direct business in American wheat in this market, and I will be pleased if you could further my endeavors to secure same. Some 38,000 tons of foreign wheat have entered this port during the past ten months, in spite of the comparatively large crops cultivated here. The wheat grown in this district requires the admixture of foreign grain to make good flour. This import trade is done almost exclusively through Marseilles firms, and the bulk of the wheat proceeds from the Black Sea ports, though cargoes from India, Australia, New Zealand, Canada, and Argentina have found ready sale. Sundry parcels from the United States have been received, and one lot is shortly due to arrive; but I have no doubt that if your export firms were in direct communication with an agent on the spot and were prepared to run in close competition

*See ADVANCE SHEETS Nos. 351, 411, 453; CONSULAR REPORTS Nos. 223, 225, 226.

with the Marseilles firms that rule the trade, there would be little difficulty in obtaining large orders from time to time. The principal receivers are grain merchants and millers, mostly men of good standing, accustomed to receive two to three months' credit after delivery, though many of these will agree to cash payments with corresponding discount.

It is needless to say that a direct service of steamers between the United States and Valencia would contribute largely to the success of the business, and at the same time would open up trade in many branches.

Speaking as a shipper of raisins, oranges, oil, etc., I am certain that a considerable amount of return cargo would be also available—more especially in wines.

I would be pleased to enter into correspondence with firms that are interested in the above and require further data.

HORACE LEE WASHINGTON,

VALENCIA, *June 9, 1900.* *Consul.*

EXTENSION OF UNITED STATES TRADE WITH SPAIN.

At the suggestion of the consul-general at Constantinople—Mr. Dickinson—that a market for American products might be created in Spain through the agency of the New York-Constantinople Steamship Line,* a Department instruction was sent to certain consular officers in Spain, directing them to report with reference to trade openings in that country. The answers are given below.

MALAGA.

The first impediment to the extension of our trade with Spain is the absence of a commercial treaty. When we stand on the same level as other nations, the commerce, so far as this consular district is concerned, is assured. Banking facilities and direct communications will follow of their own accord. Otherwise, we can not compete for Spanish trade in articles manufactured by other nations, which enjoy privileges we do not, and are near to the gateways of Spain, paying very low freight rates.

It is not due to the want of initiative that there are no better direct communications with United States ports. The imports here do not warrant it. I have endeavored for some time to gather together statistics to show to certain Mediterranean lines that it would pay them to again make this a port of call. The result was not satisfactory, excepting possibly for voyages to the westward.

EXPORTS.

The tables following, taken from the records of this office, show the quantity, in Malaga tons, of freight exported at Malaga to the

*See ADVANCE SHEETS No. 376 (March 17, 1899); CONSULAR REPORTS No. 224 (May, 1899).

United States direct and via England; also the number of steamers which carried the same:

Total quantity of declared exports to the United States, direct and indirect, for the year ended December 31, 1899.

Articles.	Jan.	Feb.	March.	April.	May.	June.	July.
	Tons.	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*
Almonds	23	67	17	44	9	58	25
Raisins	5	1	2	.....	.....	.....	.....
Palm-leaf hats	13	18	10	40	17	14	4
Olive oil	40	.....	.....	33	.....	.....	8
Wine	3	6	.....	4	3	4	1
Brandy	.....	.....	1	.....	.....	1	1
Orange peel	.....	.....	.....	10	.....	3	.....
Pepper, red	.....	.....	.....	.....	2	.....	.....
Lavender essence	.....	.....	.....	.....	.....	1	.....
Licorice root	.....	.....	.....	.....	.....	104	.....
Lead (pigs)	85	.....	.....	.....	.....	.....	.....
Total	169	92	30	131	31	185	39

Articles.	Aug.	Sept.*	Oct.*	Nov.*	Dec.	Total.
	Tons.	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*
Almonds	20	216	307	132	55	973
Raisins	8	121	808	400	158	1,503
Palm-leaf hats	40	12	12	32	38	250
Olive oil	8	8	38	30	22	187
Wine	3	2	5	3	1	35
Brandy	1	1	.....	1	.....	6
Orange peel	.....	.....	.....	.....	.....	13
Pepper, red	2	.....	2	.....	.....	6
Lavender essence	.....	.....	.....	.....	.....	1
Licorice root	.....	.....	.....	.....	.....	104
Grapes	16	57	64	.....	.....	137
Figs	3	23	.....	.....	.....	26
Lemons	60	1,190	66	.....	18	1,334
Pomegranates	.....	85	30	.....	.....	115
Aniseed	.....	1	.....	2	.....	3
Lead (pigs)	.....	.....	.....	.....	.....	85
Total	161	1,716	1,332	600	292	4,778

*Season of vintage.

The number of steamers carrying this freight was:

Month.	Direct.	Indirect.	Month.	Direct.	Indirect.
	Number.	*Number.*		*Number.*	*Number.*
January	1	3	August	.....	6
February	.....	5	September*	4	8
March	.....	2	October*	2	16
April	.....	4	November*	.....	7
May	.....	4	December	2	3
June	.....	3	Total	9	65
July	.....	4			

*Season of vintage.

Total quantity of declared exports to the United States from Malaga shipped via England for the year ended December 31, 1899.

Articles	Jan.	Feb.	March.	April.	May.	June.	July.
	*Tons.**	*Tons.**	*Tons.**	*Tons.**	*Tons.**	*Tons.**	*Tons.**
Almonds	5	67	17	44	9	58	25
Raisins	5	1	2	.....	.....	.....	.....
Palm-leaf hat	10	18	10	40	17	14	4
Olive oil	40	.....	.....	33	.....	.....	8
Wine	3	6	.....	4	3	4	1
Brandy	.....	.....	1	.....	.....	1	1
Orange peel	.....	.....	.....	10	.....	3	.....
Pepper, red	.....	.....	.....	.....	2	.....	.....
Lavender essence	.....	.....	.....	.....	.....	1	.....
Licorice root	.....	.....	.....	.....	.....	104	.....
Total	63	92	30	131	31	185	39

Articles.	Aug.	Sept.†	Oct.†	Nov.†	Dec.	Total.
	*Tons.**	*Tons.**	*Tons.**	*Tons.**	*Tons.**	*Tons.**
Almonds	20	153	250	132	45	825
Raisins	8	102	600	400	112	1,230
Palm-leaf hats	40	.....	12	32	8	205
Olive oil	8	.....	38	30	22	179
Wine	3	2	5	3	1	35
Brandy	1	1	.....	1	.....	6
Orange peel	.....	.....	.....	.....	.....	13
Pepper, red	2	.....	2	.....	.....	6
Lavender essence	.....	.....	.....	.....	.....	1
Licorice root	.....	.....	.....	.....	.....	104
Grapes	16	30	24	.....	.....	70
Figs	3	.....	.....	.....	.....	3
Lemons	60	400	25	.....	.....	486
Pomegranates	.....	70	20	.....	.....	90
Aniseed	.....	1	.....	2	.....	3
Total	161	759	977	600	188	3,256

*Malaga tons—table on page 41. †Season of vintage.

The number of steamers carrying this freight was:

Month.	Number.	Month.	Number.
January	3	August	6
February	5	September*	8
March	2	October*	16
April	4	November*	7
May	4	December	3
June	3	Total	65
July	4		

*Season of vintage.

The "Malaga" ton equals 70 cubic feet, or about 2,204.6 pounds; or, for different articles:

Raisins, 90 boxes or 45 frails.

Almonds, 80 boxes or 20 bags.

Lemons, 20 boxes.
Olives, 7 quarter casks.
Palm-leaf hats, 4 bales or 8 half bales.
Wine, 2 butts (may run over the 1,000 kilograms).
Pomegranates, 13 cases.
Grapes, 25 barrels or 50 half barrels.
Brandy, 60 cases.
Oranges, 13 cases.
Orange peel, 4 bales.

The total value of all exports from Spain to the United States during 1897 was $3,829,869.63. Complete statistics are not at hand for 1898 and 1899. The following figures only are available:

Consular district of Barcelona during quarter ended June 30, 1898	$39,427.52
Malaga (year ended June 30, 1898)	589,654.75
Almeria (year ended June 30, 1898)	313,044.20
San Feliu de Guixols (year ended June 30, 1898)	228,798.21
Tarragona (quarter ended June 30, 1898)	21,815.85
Malaga (year ended June 30, 1899)*	536,077.23
Almeria (year ended June 30, 1899)*	188,421.20
Malaga (year ended December 31, 1899)*	764,177.14
Almeria (year ended December 31, 1899)*	452,059.92

IMPORTS.

The imports from the United States received at Malaga during the year ended December 31, 1899, as per custom-house returns, were:

Articles.	Quantity.	
		Pounds.
Oils, paints, and colors....kilograms...	25,673	56,599
Raw cotton....do....	426,747	940,866
Chemical products....do....	8,728	19,242
Barley and corn....do....	4,965,896	10,947,682
Beer....liters...	3,678	(†)
Hides and skins....kilograms...	1,365	3,009
Staves....pieces ..	4,259,990	.....
Spices and preserves....kilograms...	4,883	10,765
Tin, copper, and zinc....do....	15,886	35,022
Grease....do....	42,520	93,740
Iron and steel (all kinds)....do....	138,325	304,951
Wire....do....	1,287	2,897
Lard....do....	162,657	358,593
Butter....do....	2,614	5,763
Machinery....do....	10,950	24,140
Furniture....do....	2,813	6,202
Paper (all kinds)....do....	1,171	2,582
Woven goods (all kinds)....do....	167	368
Wheat....do....	1,437,600	3,169,333
Glass, crystal, and porcelain....do....	2,715	5,985

* Export to colonies and Cuba not included.
†8,109 quarts.

I would state, with reference to staves and raw cotton, that these were brought from New Orleans in Spanish bottoms. Breadstuff came by direct boat and by way of England.

DIFFERENTIAL TARIFF.

The following tables will show some of the articles (place of origin unknown) imported into Spain during the year ended December 31, 1897, together with their values under the old and new tariffs; also, a list of some of the articles imported from the United States at Malaga during the past year, showing the differential duty under the new tariff which went into effect January 1, 1900:

Some of the principal articles imported into Spain during the year ended December 31, 1897, place of origin not stated (later statistics unavailable).

Articles.	Value.		Unit.	Duty.			
				Old tariff.		Tariff of 1900.	
				Favored nations.	Others.	Favored nations.	Others.
	Pesetas.			*Pesetas.*	*Pesetas.*	*Pesetas.*	*Pesetas.*
Agricultural machinery.	335,682	$51,695	100 kilos., gross..	14.00	18.00	14.00	18.00
Coal	44,187,973	6,804,948	1.000 kilos	2.50	3.00	2.50	3.00
Petroleum:							
Refined	6,295,054	969,438	100 kilos., net	40.00	40.00	.....	.....
Not refined				25.00	25.00	.....	.....
300° above 80 per cent refuse.				.....	.....	30.00	30.00
20 per cent to 80 per cent.				.....	.....	25.00	25.00
Less than 20 per cent.				.....	.....	37.00	37.00
Raw cotton*	96,859,540	14,916,369	100 kilos., gross..	1.50	1.50	1.50	1.50
Staves	15,126,760	2,329,521	M	10.00	15.00	10.00	15.00
Lumber, sawed but not planed.	23,527,680	3,623,283	Cubic meters	5.00	6.00	5.00	6.00
Lard	1,933,689	297,788	100 kilos., gross..	50.00	50.00	50.00	50.00
Wheat†	22,942,129	3,533,088	100 kilos., net	8.00	8.00	8.00	8.00
Sugar	12,633,472	1,945,555	.....	(‡)	(‡)	(‡)	(‡)
Tobacco	19,665,691	3,028,516	.....	(§)	(§)	(§)	(§)

NOTE.—On account of the fluctuation in value of the peseta, no attempt has been made to give the United States equivalents of the tariff. The rate June 24, 1900, was 1 peseta=15.327 cents; the average for 1897 was 15.4 cents.

* Raw cotton, if transshipped at European ports, 2.50 pesetas additional charge per 100 kilograms.

† Wheat all came from France, Russia, and Roumania.

‡ Several classifications.

§ Monopoly.

Some of the articles imported at Malaga from the United States, directly and indirectly, for the year ended December 31, 1899, with corresponding customs duty under the tariff of 1900.

Articles.	Unit.	Duty under tariff of 1900.	
		Favored nations.	Others.
		Pesetas.	*Pesetas.*
Raw cotton	100 kilograms, gross	1.50	1.50
Barley and corn	100 kilograms, net	4.40	4.40
Wheat	do	8.00	8.00
Flour	do	13.20	13.20
Iron and steel (all kinds)		(*)	(*)
Staves	M	10.00	15.00
Lard	100 kilograms, gross	50.00	50.00
Machinery:			
Agricultural	do	14.00	18.00
Other		(*)	(*)
Tin, copper, and zinc		(*)	(*)
Hides and skins	Kilogram, net	2.50	3.25
Grease (for machinery)	100 kilograms, gross	1.00	1.30
Spices and preserves		(*)	(*)
Wire (all kinds)		(*)	(*)
Furniture		(*)	(*)
Paper (all kinds)		(*)	(*)
Woven goods (all kinds)		(*)	(*)
Beer	Hectoliter	15.00	19.50
Chemical products		(*)	(*)
Oils, paints, and colors		(*)	(*)
Glass, crystal, and porcelain		(*)	(*)

*According to classification.

LINE OF STEAMERS.

At the present time there is but one regular line of steamers—the Compagnie Générale Transatlantique—whose vessels depart monthly for New York. During the vintage, there are several lines.

FREIGHT RATES.

The following table shows the Malaga tonnage, weight, and present rate of freight to the United States, direct and by way of London and Liverpool:

A ton as measured at Malaga, March 10, 1900.

Articles.	Malaga ton.	Weight.	To London and Liverpool.		To New York.			
					Direct.		Via Liverpool.	
		Kilos.	*Skill.*		*Skill.*		*Skill.*	
Raisins.....boxes...	90	1,080	22	$5.35	30	$7.30	44	$10.71
Do .....pails...	45							
Almonds .....boxes...	80	1,040	22	5.35	30	7.30	44	10.71
Do .....bags...	20							
Wines .....pipes...	2	1,200	22	5.35	30	7.30	44	10.71
Lemons .....boxes...	20	800	20	4.87	30	7.30	40	9.73
Oranges.....do.....	13	900	20	4.87	30	7.30	40	9.73
Pomegranates .....cases...	13	900	20	4.87	30	7.30	40	9.73
Figs.....tapnets...	100	1,200	20	4.87	30	7.30	44	10.71
Olive oil...quarter casks...	7	1,056	20	4.87	30	7.30	.....	.....
Lead.....	.....	1,015	5 to 7	$1.22 to 1.70	.....	.....	.....	.....
Grapes.....half barrels...	50	.....	.....	.....	30	7.30	.....	.....
Brandy .....cases...	60	.....	.....	.....	30	7.30	.....	.....
Orange peel.....bales...	4	.....	.....	.....	30	7.30	.....	.....
Palm-leaf hats.....do.....	4	.....	.....	.....	30	7.30	.....	.....

Whether it would pay any new steamship company to make this a regular port of call in going to the westward can be best judged by observing the amount of tonnage sent via England, as per my table of declared exports. In going to the eastward, a new line will not pay under existing conditions; but when a commercial treaty is an accomplished fact, sufficient trade is assured to make a regular line profitable.

Many merchants inform me that they could sell thousands of dollars' worth of our hams, canned goods, breadstuffs, and machinery if we could only make a treaty. Formerly, Spain's trade with the United States was large, but now little can be bought.

AGRICULTURAL PRODUCTS.

The value of agricultural products alone exported from the United States to Spain (Spanish possessions in Oceania and Africa not included) during the five years 1894–1898 had an annual average of $9,761,870. The United States Secretary of Agriculture states in his last report on the distribution of our agricultural exports:

> Among the countries to which American farm products were sent in diminished amounts during the last few years, Spain was the most noticeable. Our agricultural products to Spain, which were valued at $11,780,487 in 1894, fell to less than $10,000,000 in 1895, 1896, and 1897, and in 1898 to $8,667,186—a decline of $3,113,301 in the five years.

R. M. BARTLEMAN,

MALAGA, *March 10, 1900.* *Consul.*

VALENCIA.

The introduction of our products into this consular district in such manner as to insure practical results appears to require, first, a reduction of freight charges, which are excessive by reason of transshipments, and, second, a thorough presentation of our products to the trade here.

The invariable reply to inquiries of representative merchants here as to openings for our products is that freight kills profit. Without means of communication obviating transshipment, this disadvantage can not be counterbalanced. Nevertheless, to warrant a regular line calling at Valencia and other Spanish ports, new and enlarged demands must be created for our products. An exposition of American productions should be organized and branches established at such places as Valencia, where good returns may be reasonably depended upon.

For the return voyage, there would be no difficulty in furnishing a proportionate quota of freight from Valencia, and from Denia in the raisin-shipping season. Last year, in addition to miscellaneous articles, Valencia shipped to the United States hides to the value of $133,000, and 30,000 cwts. of raisins were shipped from Denia.

Señor Don Luis Mon, Marquis of Peraleja (Villanueva 37, Madrid), thinks it might be expedient to join American with Spanish capital in the organization of an exhibit. He is assured that he can count upon the Spanish capital requisite for the enterprise, and it would appear practical for our commercial associations and exporters desirous of reaching the Spanish market to consider the formation of an association for this purpose. Such an association would be in a situation to present to steamship companies trading in the Mediterranean inducements to experimentally include in their calls Valencia and other Spanish ports. So fostered, I believe our trade in this consular district would grow to large proportions.

Among other articles, lard, bacon, ham, and conserves would find a good market. Messrs. Lagarda Blas & Co., of Grao, are anxious to form a connection with our producers. They consume yearly about 31,000 pounds of bacon, the same amount of ham, 63,000 pounds of lard, and 7,500 pounds of conserves.

HORACE LEE WASHINGTON,

VALENCIA, *March 23, 1900.* *Consul.*

In a previous report, Mr. Washington said in regard to the proposed exhibit of American goods:

The suggestion has been made with some frequency that an exhibit of American products and manufactures in Valencia would open up trade in many directions. This would be best done, in my opinion, by establishing a permanent exhibition at a center to be determined by the best interests of those concerned, and, from that permanent establishment, sending to Valencia and other points such exhibits as the market demands.

I have received a letter on the subject from a gentleman in Madrid who has become interested in this enterprise, which is quoted below as of possible service to manufacturers or agents who might desire to open correspondence.

As regards this locality, it seems probable that furniture of well-seasoned wood of all descriptions, office desks and fittings of medium value, notions, cheap jewelry, electric-light fittings, toys, and wall paper would find a market if brought to notice in the manner suggested. A market once created for American manufactures could be extended in many directions.

The gentleman referred to—Señor Don Luis Mon, Villanueva 37, Madrid, an attorney—writes:

In conjunction with a few of my friends and clients, I have formed the idea of founding in Madrid a permanent exhibition of North American products, in combination with consulting commercial offices that would encourage the development of the industrial interests of both countries and contribute to international trade between the United States and Spain.

We think that the prosperous and advanced industry of the United States might find in Spain a good market for the sale of its products, and could compete advantageously with the German, English, and French goods.

Spain might well furnish North America with various products of her soil, especially of her subsoil, in the same way that she sends large quantities of iron, lead, and copper ore to nations of Europe. But, in order to create these new commercial channels, it is necessary in the first instance to make known the products of one country to the other, to arrange a cheap means of transport, besides establishing a reliable center of information, both as regards the special conditions of each industry or trade, and the reliability of the houses concerned.

This is the nucleus of our idea. With a view to the development of the same, we are in correspondence with the Commercial Museum of Philadelphia and other important centers of the United States, and we have also communicated with the consul-general of the United States in Constantinople, Mr. Dickinson, to see if his efforts in Turkey and ours in Spain may be in some way combined, so that the line of navigation that he has succeeded in establishing may be extended between New York and the Mediterranean ports with a result equally advantageous to both enterprises.

ANTWERP IVORY MARKET.

The second quarterly sale of 1900 was held on the 1st and 2d of May, the ivory offered being as follows:

Kongo:	Pounds.
Hard	148,592
Soft	6,347
Angola	17,299
Abyssinia	17,542
Gaboon	7,813
Kamerun	2,195
Senegal and Gold Coast	359
Ambriz	8,636
Total	208,783

The totals for the corresponding quarter of preceding years were:

	Pounds.
1899	173,056
1898	128,603
1897	163,258
1896	146,722

Notwithstanding the exceptionally large amount of ivory put up for sale, the entire quantity was rapidly disposed of.

The medium and heavy sized tusks of the Angola, Ambriz, and Gaboon variety decreased in price by from 9.6 to 19.3 cents, the Kongo by from about 19.3 to 38.6 cents, and the soft varieties by 57.9 cents, per 2.2046 pounds.

The tusks for bangles and balls, as well as the scrivailles, maintained their precedent values, with perhaps a slight tendency to decrease.

The stock on hand amounts to about 231,924 pounds, as compared with 206,130 pounds in 1899, 127,866 pounds in 1898, 185,186 pounds in 1897, and 235,892 pounds in 1896.

The next sale is to be held on the 31st of July, 1900.

GEO. F. LINCOLN,
Consul-General.

ANTWERP, *May 9, 1900.*

LUMBER MARKET IN ROTTERDAM.

Consul Listoe writes from Rotterdam, June 11, 1900:

As the reports sent out from this consulate and published in ADVANCE SHEETS OF CONSULAR REPORTS* have served to stimulate the trade in American lumber at Rotterdam, Messrs. J. C. &

*See ADVANCE SHEETS Nos. 376, 596, and 715; CONSULAR REPORTS Nos. 224, 233, and 237.

Th. H. Leijenaar, importers at this port, have commenced to publish a monthly lumber-market report for distribution among their American customers and lumber manufacturers generally. I transmit the report dated June 1.

There is a pretty good tone prevailing in our market for American hard woods, and, the demand having been rather lively during last months, stocks of logs as well as of lumber are very light, except of oak lumber 2 inches, which should not be shipped just now, except in really prime quality.

Quotations are for logs per 1,000 feet Scribner rule and for lumber per 1,000 feet board measure.

Walnut logs.—None on spot and shipments are eagerly solicited. Good logs 16 inches and up to average 20 to 21 inches will obtain $90 to $100; to average 22 to 23 inches, $110 to $120, according to quality.

White-oak logs.—All cleared and shipments 24 inches and up will realize $45 to $47.

Good whitewood logs are wanted and logs 28 inches and up will readily sell at $42 to $44.

Hickory logs of good quality and small brown heart are worth to-day $50; the demand, however, is limited.

Persimmon logs 10 inches and up will bring $16 per 2,240 pounds.

White-ash logs 14 inches and up, $44 to $45.

Gum logs.—There are large stocks without buyers.

White-oak lumber, plain, 1 to 4 inches, sells for $46 to $52; three-eighths, one-half, five-eighths, and three-fourths inch also in good demand.

White-oak stairsteps 1¾, 2, 2¼ inches by 11, 12, and 13 inches, $52 to $54.

White-oak strips 1¼ by 4, 5, and 6 inches, 8 to 16 feet long, $46 to $48.

White-oak parquetry strips are in small demand; 1 by 4, 5, 6 inches, $40.

Oak scantlings 3 by 3 inches, 3 by 4 inches, 4 by 4 inches, 8 to 16 feet long, $42 to $44.

Walnut lumber 1 inch, $106 to $108; 1¼, 1½, 1¾, 2 inches, $110 to 115; 2¼ to 4 inches, $120 to $125.

Satin-walnut lumber.—All stocks cleared, and the demand is continually good; 1 inch, $41 to $42; 1¼ to 1½ inches, $42 to $43; 1¾ to 3 inches, $45 to $47.

Cottonwood lumber 1 inch, $28 to $29; 1¼ to 2 inches, $29 to $31; one-half and three-fourths of an inch is also in good demand.

Ash lumber 1 to 3 inches, $45 to $54.

Red cypress 1 to 2 inches, $37 to $39.

Pitch pine 1 to 4 inches by 11 inches and up, £13 to £13 10s.

AMERICAN TRADE IN SCOTLAND.

In trade circles in the east of Scotland, there is evidence of the increasing activity of American manufacturers in the foreign market. More and more they are getting directly in touch with the trade, with the buying public, either personally or by immediate and responsible representatives, and are showing the same enterprise in working up business that they apply so successfully in the home market. This plan of acquiring foreign trade was pursued rather timidly by

our manufacturers previous to 1898, at least in this part of Great Britain. During the past two years it has developed rapidly in some lines of trade, and the results are seen in the greatly increased sales of nearly all kinds of machinery, hardware, wooden ware, furniture, rubber goods, leather goods, and a variety of other products.

While it is true of most American-made articles that when seen under favorable conditions they recommend themselves, it is nevertheless true that, as a rule, in Scotland an article can not be depended upon to sell itself; it must be presented in the right way, by the right people, and to the right people. Even American printing presses and laundry machinery, which have no equals anywhere, have only gained a place abroad through the persistent efforts of men thoroughly familiar with them and able to demonstrate their merits. In this country, and perhaps in every other, not only an indifferent article, but a first-class article as well, requires "pushing" in order to give it a progressive impetus. An American inventor and maker of an important apparatus used in connection with steam engines in several branches of manufacture secured only a moderately profitable trade in Scotland so long as he left the matter wholly in the hands of agents. A few months ago, he came over here, and a little investigation disclosed the extent of the market for his machine; he joined his agents in a campaign of "push," with a highly satisfactory result, which, he informed me, would be of great value to him for years to come, even if he should pay no further personal attention to this market. The application abroad of energetic American methods is to be noticed here at the present time in various lines of trade. The latest instance is that of a prominent American company manufacturing agricultural machinery, which has sent one of its most expert salesmen to Scotland to work with its local agents in a farm-to-farm canvass of the country.

This keen spirit manifested by the captains of American industry in promoting foreign trade can hardly fail to swell the tide of our exports of manufactures.

RUFUS FLEMING,
Consul.

EDINBURGH, *June 11, 1900.*

AMERICAN CLOVER SEED.

Consul Schumann, of Mainz, informs the Department that a newspaper of that city warns the farmers against buying American clover seed, giving as reason that it contains so many weed seeds as to utterly ruin the fields planted therewith, besides yielding only a very poor crop. A copy of the above was sent to the United

States Department of Agriculture and elicited the following reply from Mr. Andrew Geddes, chief clerk:

The charge that American clover seed is impure is very rarely made by European dealers or experiment-station workers of repute. On the contrary, the fact that American clover seed is very pure and of excellent germinating quality has been recognized even by those who oppose its use by European farmers. Among the seed-control workers in Europe, Nobbe, Eidam, and Kirchner have given testimony to the high purity of American clover seed, although the two latter have been hostile to the American seed.

Very little European clover seed finds its way to America, and it is thus impossible to make a definite statement of its purity as the result of our own investigations. However, the Department of Agriculture secured this spring twenty samples of European clover seed for experimental purposes. The average purity of these was 93.49 per cent. The average purity of one hundred and fifty samples of American clover seed of all grades sold on the American market during the past winter was 95.5 per cent.

The charge that the product from the American seed is inferior to that from the European seed is a more serious one, inasmuch as it is made by the greater number of workers in the seed-control stations. There are, however, notable exceptions. Dr. Nobbe, of Tharând, has always maintained that the American clover was of good quality; and in a recent issue of the Deutsche Landwirtschaftliche Presse, Dr. Kirchner, who had previously maintained that American clover was inferior, gives the results of tests that clearly shows the American product to be better than the European. The explanation of these conflicting reports is doubtless that the American seeds used in these tests did not all come from the same part of the United States and were of varying quality.

Experiments are now being carried on under the direction of the Secretary of Agriculture to determine the relative value in the United States of clover seed of European and of American origin, and these will probably be followed by extensive tests to determine the value of seeds produced in different sections of the United States.

EUROPEAN DEMAND FOR FLAX AND FLAXSEED.

Among the recent inquiries received at the United States consulate-general in Berlin which would seem to offer opportunities for American exporters are the following:

FLAX.

Mr. George Keil, at Hirschberg, in Silesia, wishes to establish connections in the United States for the importation of American flax. There is in eastern Saxony and southern Silesia a very important linen industry, the raw material for which (flax fiber) is mainly imported from Russia and Austria, the imports of 1899 having been 49,736 tons, of which 45,177 tons came from Russia. Flax is free of duty under the German tariff. By reason of short supply and high prices, there would seem to be now an opportunity to

introduce the American fiber as a raw material for Germany's linen manufacture, the finished products of which are exported in a large and steadily increasing degree to the United States.

FLAXSEED.

For the same reason, the supply of flaxseed for consumption in Germany and Austria—which is likewise largely of foreign origin—is deficient and unusually high in price. Germany imported in 1897, 262,254 tons of flaxseed; in 1898, 269,946 tons; and in 1899, 266,019 tons. Of the last year's imports, 101,654 tons came from Russia, 114,275 tons from British India, 22,939 tons from Argentina, small quantities from Belgium, Holland, and Austria, and only a bagatelle of 805 tons from the United States. But, in consequence of dearth and other unfavorable conditions, the supply of linseed from both Russia and India is far below the usual quantity. If, therefore, there is any important surplus in the American market, exporters would do well to study the requirements of the German and Austrian markets, and for this latter purpose should address Messrs. Pototschnig & Frankel, of Trieste, who are anxious to obtain quotations from the United States.*

FRANK H. MASON,
Consul-General.

BERLIN, *June, 1900.*

WORLD'S COFFEE PRODUCTION.

Consul Bartleman sends from Malaga translation of a newspaper article, containing information relative to the world's coffee production, as follows:

Dutch brokers have just published a very important work giving statistics on coffee during the past six years, from which we take the following data in relation to the importations, delivery for the year, consumption, and stocks on the 31st of December in Europe and the United States:

Description.	1899.	1898.	1897.	1896.	1895.	1894.
Europe.	*Sacks.*	*Sacks.*	*Sacks.*	*Sacks.*	*Sacks.*	*Sacks.*
Importations for the year...	9,165,700	9,426,800	9,181,900	7,374,300	7,340,000	6,494,000
Delivered for consumption..	8,867,400	8,502,900	7,968,100	7,405,700	6,805,400	6,647,800
In stock on December 31.....	4,114,800	3,816,500	2,892,600	1,678,700	1,710,200	1,175,600
United States.						
Importations for the year...	6,433,900	5,822,900	5,817,900	4,585,900	4,588,900	4,465,100
Delivered for consumption..	6,271,900	5,822,900	5,408,900	4,554,000	4,435,000	4,400,000
In stock on December 31.....	1,080,000	918,000	918,000	508,000	475,000	321,000
United States and Europe.						
Importations for the year...	15,599,600	15,249,700	14,999,800	11,960,200	11,928,900	10,959,100
Delivered for consumption..	15,139,300	14,325,800	13,377,900	11,959,700	11,240,400	11,047,800
In stock on December 31. ...	5,194,800	4,734,500	3,810,600	2,186,700	2,185,200	1,496,600

*See ADVANCE SHEETS No. 759 (June 19, 1900). A report covering the same information has also been received from Consul Diederich, of Bremen.

According to said work, the universal production during the past six years was as follows. The year is the fiscal one.

Year.	Production.	Year.	Production.
	Sacks.		*Sacks.*
1895-96	10,355,000	1898-99	13,723,000
1896-97	13,605,000	1899-1900	14,437,000
1897-98	16,178,000	1900-1	13,975,000

The two last quantities are approximate only, but carefully made.

These figures show that the consumption has increased in the last four years almost at the rate of 1,000,000 bags per annum, and if the estimates which have been made of the next crop prove true and the consumption only reaches that of the previous year, there will be next year an important unbalanced market of more than 1,000,000 sacks against the production, which will considerably diminish the large stocks with which the market has been unfavorably loaded in the past few years. This belief is the main reason for influencing the good outlook which the market presents to-day.

The European stocks have suffered a decrease of 3,000 tons in the month, and there are 232,550 tons remaining.

The world's visible stock has also diminished about 7,790 tons, leaving some 382,080 tons.

FOREIGN SHIPBUILDING IN 1900.

The recently published statistical reports on the building and launching of ships in Great Britain during the first quarter of 1900 show a general decrease when compared with last year, which had surpassed all previous years in this respect. The higher prices in iron and coal have been, to a considerable extent, the cause of the decrease. However, it is not expected that this condition will long continue.

The gross tonnage of ships (war ships excluded) launched in Great Britain during the first three months of 1900 was 265,000 tons, of which 264,000 tons were in steamers.

As for ships (war ships excluded) under construction during that period, there is also a considerable decrease noted when compared with the same quarter of 1899, but quite an increase over previous years, as the following table will show:

Year.	Steamers.	Sailing vessels.	Total.
	Tons.	*Tons.*	*Tons.*
1897	810,400	18,000	828,400
1898	1,181,000	4,000	1,185,000
1899	1,382,200	3,400	1,385,600
1900	1,249,000	11,000	1,260,000

A noted increase in the construction of large steamers is reported. Three months ago, there were building only three steamers of more than 10,000 tons, while now seventeen are in course of construction. There are also building four vessels of 9,000 to 10,000 tons, two of 8,000 to 9,000 tons, and seven of 7,000 to 8,000 tons.

In the construction of war ships a continued increase was noted. At the end of the month of March there were building:

Year.	For English account.		Foreign account.	Total.
	Government wharves.	Private wharves.		
	Tons.	*Tons.*	*Tons.*	*Tons.*
1897	133,000	121,300	81,000	335,300
1898	104,800	133,700	117,400	355,900
1899	152,800	171,800	109,000	413,600
1900	162,700	222,800	68,600	454,100

It appears that the construction for foreign account during the last three years has been decreased, while the construction for Great Britain has been considerably increased, especially at private wharves, where the British Government is having more ships built than at its own wharves. The larger number of men-of-war built, however, does not cover the decrease in the number of merchantmen, but falls short about 100,000 tons, or 6 per cent.

As for shipbuilding in other countries, Germany takes the lead, but is followed closely by the United States.

Merchant vessels under construction during the March quarter, 1900, are noted at Lloyd's as follows:

Country.	Steamers.	Sailing vessels.	Total.
	Tons.	*Tons.*	*Tons.*
Germany	154,000	3,000	157,000
France	45,000	60,000	106,000
Holland	24,000	6,700	30,700
Italy	101,000	4,500	105,500
Norway	24,700	.....	24,700
Sweden	3,000	300	3,300
Denmark	6,600	.....	6,600
United States	111,100	4,400	115,500

Besides these, there were building in Japan 13,000 tons for European account, which is considered phenomenal.

The tonnage of the vessels being built in England at the end of March, 1900, is distributed for the greater part among the following countries:

Country.	Tons.	Country.	Tons.
England	967,000	Holland	29,000
English colonies	21,000	France	8,000
Germany	84,000	Norway	8,000
Austria	37,000	Japan	7,000

It is confidently expected that the new measure for increasing the German imperial fleet, which is about to become a law, will add great impetus to shipbuilding in this Empire.

HENRY W. DIEDERICH,

BREMEN, *April 30, 1900.* *Consul.*

FRENCH SILK INDUSTRY.

The manufacture of silk and its affiliated industries have for several centuries been the chief business of Lyons and the surrounding country. The causes which have influenced the development of this trade, the pressure which has been brought to bear upon it by Government control and associations of workingmen, render its history instructive and useful.

HISTORICAL.

The Romans established works here in the third century A. D. for the manufacture of cloth of gold and silver, but every vestige of these was swept away by northern invasions. The present silk industry was brought here from Italy and Spain and the Levant about the year 1466, under the fostering care of Louis XI. He imported machinery and weavers with the expressed purpose of diminishing the stream of gold then flowing into foreign countries. It is recorded that 5 aunes of silk at that time cost from 300 to 400 francs, or from 48 to 60 francs ($9.26 to $11.58) per yard, money then being worth about four times its present value.

Among the encouragements offered to silk weavers during the first century of the existence of this industry in Lyons was exemption from military service and taxation. So rapid was its development that in 1650 the weavers numbered 18,000, or 60,000 with affiliated pursuits.

No branch of this industry was free. The Government determined the wages and hours of labor, ordained how many looms one employer should run, the number of apprentices and the term of apprenticeship, what class of goods he should make, whether a woman or a man who had married into a weaver's family should be permitted to work as a weaver, how many clerks a manufacturer

should have—the whole business being involved in a code of complicated regulations causing constant wrangling between employer and employee and creating an army of life-tenure officials to discover breaches and to enforce regulations. These were subject to frequent changes, such as the imposition of a tax on foreign workingmen, prohibition to weave in the country during a period of ten years, a graded tax upon looms, limitations of the hours of labor and of the output, the whole creating a situation in which the rights of individuals were ill defined and subject to the arbitrary whim of inspectors. Complaints made by spies were followed by fines, exile, and hanging.

EDUCATIONAL.

Lyons is a school for teaching the manufacture of silk, as well as a great center of the silk trade. Young men come here from all countries to learn to make silk, acquiring the language while learning an important branch of commerce. In the silk department of the commercial school, there are generally from 250 to 300 pupils. The price of tuition is 800 francs ($154) per year for Frenchmen and 1,200 francs ($231) for foreigners. All kinds of silks, velvets, plain and figured goods are made by the learners under the superintendance of skilled workmen, with the most improved machinery. Some of this machinery bears the mark of a Philadelphia or Paterson manufacturer. A Singer sewing machine sews the pattern cards together. Thirty looms are run by hand and twenty-five by steam.

The municipal school, on the Croix-Rousse Hill, the traditional home of the weaver, admits only Lyonnese youth. It is sustained by the municipality. Any boy 15 years of age, with the residence qualifications, can here learn the theory and practice of silk weaving, designing, and making patterns for 9 francs ($1.73), the total registration fee for the three departments. The day course of study is ten months. In the night school, provided for children who are employed during the day, a course of three years' study is required before graduating. Among the 300 or 400 pupils are the children of the rich and poor, some kept there at a sacrifice on the part of their parents. Each learner is required to keep a carefully written diary of his work, with abstracts of lectures, patterns of silk, designs of machinery, diagrams, etc. A presentation of this book to a silk dealer invariably secures him a situation. The director, M. Guigardot, informs me that for several years he has not been able to respond to all the demands for young men made by the large silk houses of Lyons. Everything is taught here, from the breeding of the silkworm to the weaving of the finest stuffs for wearing, upholstering, mural decoration, and artistic embroidery. The product of the school, which is sometimes defective, is sold at nominal figures.

MANUFACTURE.

Upon the Croix-Rousse Hill, there are not less than 25,000 men and women engaged in weaving silks and velvets. Many of them have no idea how many generations their families have been working in the same rooms, but the genealogy would probably run back through several centuries. Their work represents the finest silks, satins, and velvets made in the world. The men earn an average of 3 francs (about 57½ cents) per day and the women 48 cents. A good workman engaged upon the finest material will earn 5 and 6 francs (96 cents to $1.15) per day. A very few employed upon exceptionally fine goods, involving the use of an infinite number of colors and shades, receive as high as 12 francs ($2.31) per day.

For a year or more, Paris and Lyonnese artists have been making designs for work to be exhibited at the Paris exposition. One piece of tapestry just finished contains two hundred distinct shades and tones sprinkled over the branches, buds, flowers, and leaves that compose it. Two hundred thousand cards were used on the Jacquard handloom upon which it was woven.

The ingenuity of the dyer is taxed to find names for the various tints. In a book of sample colors containing nearly one thousand distinct tones, one is denominated "Hobson." It is a clear, bright blue, with a score of finely graded tints. Others are named "Miss," "Cuba," "Porto Rico," "Fashoda," "Colorado," "Manila," "Maryland," "Khartum," etc.

There are satins and velvets printed on the warp, produced in the manner that a job printer employs for a colored card or bill, each shade requiring a distinct impression, and some as many as sixty different impressions. After the warp is printed, the woof is formed by from two to eight shuttles, each carrying a different color of thread. After the silk is printed and woven, raised work is added by deft fingers.

Hand work is rapidly giving way to power looms, especially in the plainer fabrics. The latter can do from three to four times as much work as the former, if producing light stuffs. In making velvets and figured goods, the difference will be about double. A power loom will produce some 15 meters (49.2 yards) of tulle per day, against 10 meters (32.8 yards) on a handloom worked by a good man.

The manufacture of velvets by power looms was commenced about thirty years ago, and they have now pretty generally taken the place of handlooms. The Weavers' Bulletin of February 21, 1900, stated that the number of handlooms in use in Lyons, December 31, 1889, was 17,294. On December 31, 1899, the number had fallen to 8,637. Between the same dates, the number of power looms increased from 200 to 2,383. Thus, 8,657 handlooms had

disappeared in ten years. The output undergoes a slight annual increase, as shown by the following table:

Year.	Value.	
	Francs.	
1894	379,000,000	$73,147,000
1895	399,000,000	77,007,000
1896	400,000,000	77,200,000
1897	404,000,000	77,972,000
1898	415,000,000	80,095,000
1899	451,000,000	87,043,000

This shows an increase in 1899 over 1898 of 36,000,000 francs ($6,948,000), largely due to the increased cost of raw silk.

The estimate of the number of power and hand looms applies only to the city of Lyons, but all the silk manufactured in France should be classed as coming from Lyons. The raw material first comes here, where it is conditioned; that is to say, a part of it is dried, and it is all weighed in the Lyons condition house. All raw silk contains more or less moisture, which buyers are naturally averse to paying for. When a bale of silk reaches the condition house, three hanks are taken from it and weighed wet. They are then dried and weighed again. The amount of moisture in the whole bale is thus computed and deducted from the number of pounds that the bale weighed. This is called conditioning the raw silk. The last report of the Lyons condition house marks a steady increase in the amount of silk conditioned during the past thirty years. In 1869, the receipts were 3,102,699 kilograms (6,840,190 pounds). During the next nine years, the fluctuations were few, the receipts rising to 4,244,141 kilograms (9,356,633 pounds) in 1878 and continuing at 4,000,000 and 5,000,000 kilograms (8,818,400 and 11,023,000 pounds) in round numbers until 1895, when the receipts rose to 6,780,885 kilograms (14,949,139 pounds), reaching 7,490,117 kilograms (16,512,712 pounds) in 1899.

The proportion of raw silk raised in France has been steadily diminishing since 1871, when it was 37 per cent of the world's output. It fell to 18.29 per cent in 1878, to 16.97 per cent in 1881, and to 9 per cent in 1899. The proportion received in the Lyons condition house from the different producing countries in 1899 was:

Country.	Per cent.	Country.	Per cent.
Spain	0.34	Bengal	1.7
Peidmont	1.74	China	17.4
Italy	8.72	Canton	26
Broussa	6.96	Japan	13.17
Syria	5.71	Persia	8.32

The reelers and producers of cocoons in France have urged the Government to put a tariff on raw silk to protect their industry. As this would give other countries, where those commodities are free of duty, an advantage over French silk manufacturers, the petitions have not been complied with. Instead, the Government has granted a premium to silkworm breeders of 5 cents per pound and to spinners of 400 francs ($77.20) per basin of French and 340 francs ($65.62) per basin of foreign cocoons. From 1892 to 1898, inclusive, the Government has paid out 29,849,239 francs ($5,760,903) in premiums for silk breeding. The quantity has steadily declined, because more money can be made from the land in the silk-growing districts by cultivating wines, fruits, and early vegetables than by raising cocoons.

Lyons silks and velvets are made in the Departments of the Rhône, Isère, Loire, Ardèche, Drôme, Saône-et-Loire, Savoie, Ain, Haute-Savoie, and Puy-de-Dôme. A moderate estimate places the number of persons employed in the various industries involved in the production of silk in these Departments at not less than 400,000. The secretary of the Lyonnese Manufacturers' Association places the total number of handlooms in use at 50,000; power looms, 30,000. As the power loom can work more steadily, it produces considerably more than half the silk handled in the Lyons market.

Some of the handlooms that have been displaced by power have been transported from the city to the country, where they are used in the families of farmers in weather unseasonable for out-of-door work. Nearly all the velvet handlooms, once so numerous in Lyons, are now idle or in use in the country. An aged weaver told me that twenty years ago he earned 8 francs ($1.54) per day making fine velvet in his home. Ten years later, his earnings fell to 4 francs (77 cents), and one year ago to 2½ francs (48 cents) for twelve hours' work. He had his looms remodeled and now makes taffetas and armures, earning 4 francs (77 cents) for twelve hours' work.

The manufacturers and dealers have made a generous effort to aid the struggling weavers, who are suffering from the conditions involved in the introduction of steam and electricity. In 1896, a society was organized in Lyons for the development of weaving. It consisted of manufacturers and owners of buildings occupied by the hand weavers of the Croix-Rousse Hill. The founders of this society subscribed 30,000 francs ($5,790), the Chamber of Commerce of Lyons added an equal sum, and the city of Lyons met these two subscriptions with 100,000 francs ($19,300). To the sums thus raised the Prince Imperial Bonaparte Society added 150,000 francs ($28,950) in 1856. From these donations, the society has given one hundred and seventy power looms to seventy weavers, who continue to live in the same quarters where their families for generations

before them worked the old handlooms. The new apparatus is furnished only to men of known honesty and industry; they pay 10 per cent of their earnings to the society for the development of weaving until the loom is paid for. The electrical power costs them 5 cents per day. A man can pay for his loom in ten or twelve years. In the meantime, his work will be much less laborious, his daily earnings will be somewhat increased, and when his last payment is made he has an assurance of 1,800 francs (about $350) per year for each loom worked in his family.

EXPORTS TO THE UNITED STATES.

The exports from the Lyons consular district to the United States—most of which consist of silk—vary but little from year to year, as is seen by the following figures:

1894	$7, 253, 729. 71
1895	8, 562, 742. 00
1896	8, 139, 138. 13
1897	8, 778, 772. 32
1898	8, 427, 557. 97
1899	8, 788, 229. 31

In the meantime, the mills in our country are constantly supplying a larger percentage of the home consumption. An approximate estimate places our home supply in 1882 at 35 per cent of the consumption; in 1892, at 55 per cent; and in 1899, at from 80 to 90 per cent.

OUTLOOK.

There are sound reasons for believing that France will always possess a large silk industry, and that it will center in Lyons. No matter how the progress of invention may lower the cost of production, the French peasantry can always make silk. Their economy and industry will be able to compete with steam. The products of their skilled labor will always find a market.

France has an advantage over other nations in the creation of artistic designs. Great artists do not hesitate to make patterns for silk, for apparel and tapestry. A fine design costs from 50 to 75 per cent less here than in any other country, and the manufacturer always has a number to choose from. The old guild records of Lyons contain many complaints of the thefts of patterns by other countries. That is largely done away with now by the frequency of the changes of fashion.

In all articles where labor is the chief component element of value, France can undersell American products, unless the latter are

protected by a high tariff. Where material represents four-fifths of the value and the work can be done by machinery, the manufacturers of the United States can compete successfully with those of any other country.

JOHN C. COVERT,
Consul.

LYONS, *May 10, 1900.*

NEW AUTOMATIC SHUTTLE IN FRANCE.

Under date of May 8, 1900, Consul Atwell writes from Roubaix:

I am informed that in the course of five or six weeks there will be on exhibition at the Technical Institute of Roubaix an invention of Mr. Paul Clement, of Wasguchal, the director of the weaving establishment of Messrs. Lefebvre & Bastin. This invention can be adapted to any armure or Jacquard loom for fabrics with a woof; it consists in the employment of shuttle and bobbin, and is designed to automatically replace the shuttle when the thread of its bobbin is nearly exhausted. It is regarded as more simple in construction and consequently less costly than the Northrop invention. The advantages are summed up as follows: It is easily regulated; makes loosely woven fabrics without defects; defects in delicate fabrics are avoided and the selvage is perfect; waste of warp is reduced to a minimum; the production of each loom may be increased from 20 to 25 per cent, the speed attaining from 180 to 200 strokes per minute; and the hand work is diminished, as one weaver can attend to several looms. This invention is already in use in one of the large factories of Roubaix.

ANTIALCOHOL SERUM IN FRANCE.

In December last, Drs. Sapelier, Thébault, and Broca advised the French Academy of Medicine of their discovery of an antialcohol serum.

These gentlemen stated that their experiments proved that a horse fed for a certain time on doses of alcohol and food mixed with alcohol furnished a serum antiethyline which, injected into victims of the alcohol habit, gave them an absolute distaste for the liquor.

Dr. Sapelier, of Nauterre, sent a second communication on May 22 in his own name and that of his collaborators to the Academy of Medicine, stating his method and the results obtained. He cited fifty-seven cases of drunkards treated by antiethyline. Seventeen cases were failures, four resulting from irregularity in following the treatment and thirteen from physical defects considered as unfavorable conditions. There were eight cases of improvement, four

notwithstanding irregularity in following treatment, and four despite defects limiting the action of the serum. Thirty-two cases were successful. The result is then as follows: Failures, 25 per cent; improved condition, 15 per cent; successful, 60 per cent.

It has been said that the success obtained by the injection of antialcohol serum is due or partially due to imagination or autosuggestion. Dr. Sapelier refutes this assertion by stating that among the patients cured a certain number were quite ignorant of the reason and nature of the treatment, and that the hysterical and impressionable patients figure among the failures, or those who merely improved in condition.

Drs. Sapelier, Thébaut, and Broca have deduced an ingenious theory from their method. They say that the action of antialcohol serum awakens reflex acts, which as a whole constituted originally the instinctive distaste of man for alcohol, thus reestablishing a natural habit in place of an induced habit.

Antiethyline thus restores a man to his normal state. Drs. Sapelier, Thébaut, and Broca consider that the serum may be regarded as a potent agent against alcoholism.

W. P. ATWELL,

ROUBAIX, *May 31, 1900.* *Consul.*

PROPOSED UNITED STATES-SWISS ALLIANCE.

According to the Swiss press, the protective tariffs of European countries exclude the products of Switzerland, whose industries find support only in free-trade England. The proposition, mooted in some quarters, to create a tariff union between Great Britain and her colonies is regarded with apprehension. Such action, it is said, would involve Switzerland in industrial ruin. Statesmen are inclined to seek for an alliance of Switzerland with some foreign country. In this connection, the Allgemeine Schweizer Zeitung suggests the United States. It says:

> In spite of dark sides which are also found there, the United States is full of the air of freedom. Switzerland would lose nothing if she should become a State of the United States of America. It is a well-known fact that the several States of the American Union are much more independent than the several Cantons of Switzerland, and our country, by such an alliance, would sacrifice none of her liberties. All she would have to do would be to send her representatives to Washington. Economically and politically she would gain everything.
>
> It remains to be seen what the Americans would say about an alliance with Switzerland. For a long time, they have tried to gain a foothold in Europe. Every citizen of Switzerland, who has the welfare of his country at heart, should ponder this alliance.

RICHARD GUENTHER,

FRANKFORT, *May 29, 1900.* *Consul-General.*

PAVEMENTS IN SWITZERLAND.

The city of Basel has made, within the last few years, a series of experiments in street paving that may have a certain interest on account of the employment on a small scale of American pitch pine, as well as by reason of the general importance of the subject.

It appears from an official report that the first wood pavement was laid in 1888 in one of the chief thoroughfares, the owners of the contiguous property being obliged to pay the difference between the cost of stone and wood pavement. The material used was the fir (*Pinus abies*), a tree that covers the neighboring Jura and Black Forest and gives to the latter region its name. In a few years this pavement became worthless, and the government required the property owners to pay half the expense of new pavement and of repairs to the old, grading and the béton support being still at the charge of the city.

At the same time, an effort was made to secure greater durability by improved treatment of the wood blocks and by securing uniformity in the material, lack of which had been one of the chief causes of the rapid destruction of the pavement. These preparatory measures were executed by the government itself instead of by the contractors, as in the first instance, and somewhat better results were obtained. Still, in a short time repairs were needed, and in five or six years the complete renewal of the pavement was imperatively necessary. The lack of sunlight in the narrow streets which are most frequented promotes the decay of the wood. In the single large square where that material is employed, it has proved more satisfactory. But the concentration of the traffic on the parts of the street not occupied by the tram lines and the sharp shoe calks of the horses, especially in the damp winter weather, soon literally hacked the pavement to pieces.

For the present, the extension of the wood-pavement system has been abandoned; but the renewal of that now existing must be provided for, because of the expense of the stratum of béton. For this purpose, however, fir blocks will no longer be employed. Several other woods are under consideration. American pitch pine, tried on a small scale a few years ago, is rejected on the ground that it has so much waste (sap wood) that its inspection is extremely difficult. Larch from the Canton of Valais (*Pinus larix*, a species strongly resembling American larch or hackmatack) was laid experimentally in 1894, and is now in such a condition that an existence of nine or ten years is anticipated. It is said that this material has proved fairly satisfactory in Paris. Oak and pine are rejected, both

on account of their too great cost and their relative unsuitableness for the purpose.

On the whole, it is thought most practicable to use a new material which is said to be in favor in Dresden and Leipzig—the Australian karri wood.

Below is a tabular statement of the presumed cost per square meter (10.7642 square feet) and the estimated duration of the different kinds of wood already used or under consideration:

Wood.	Price.	Duration (years).
Fir from Jura or Berneroberland, already used	$1.98	5 to 7
Fir, in future	2.22	6 to 7
Larch from Valais	2.35	9 to 10
Larch from the Grisons	2.88	9 to 10
Pitch pine from America	2.75	10
Karri wood	3.86	18

According to this computation, karri blocks would have to be renewed but twice in thirty-six years, costing only $7.72 per square meter, while fir must be renewed six times in that period at a cost of $13.32. Karri wood will therefore be used for renewing the existing wood pavement.

For the streets now paved with cobblestones from the Rhine, as well as for the macadamized streets that are to be paved, it is proposed to use large hewn quarry stone. A quartz sandstone from Alsace which was laid on trial a few years ago has given excellent results. By setting such stones closely and carefully together, it is claimed that a smooth, durable street is obtained which is almost as noiseless as one paved with wood, costs only $2.50 per cubic meter (35.316 cubic feet), and will last thirty years.

As a further experiment, a certain quantity of Belgian porphyry is to be used—a stone said to be extermely durable and requiring hardly any expenditure for repairs.

GEORGE GIFFORD,

BASEL, *June 11, 1900.* *Consul.*

DENTISTRY IN SWITZERLAND.

From time to time, I have received communications from citizens of the United States requesting to be informed of the laws and requirements of Switzerland in regard to the practice of different professions, principally dentistry. The communications have usually come from young men starting in business who desire to pass a few years in Europe, and at the same time practice their profession in order to support themselves during their residence here.

To an eminent American dentist in Zurich—Dr. William C. Achard—I have propounded a number of questions upon the subject, which, together with the answers thereto, I give hereunder:

Through what schools is it necessary to pass to obtain authority to practice dentistry in Switzerland?

Through no school; but it is necessary to pass an examining board either in Zurich, Basel, Geneva, Berne, or Lausanne. It is necessary to have the "Maturitat" and "Propodenticum" before being permitted to hear lectures and clinics at the universities. At these there is no examination, excepting in Geneva; but a certificate of attendance is issued, and this certificate entitles the holder to an examination by one of the federal boards (above).

Before whom are the examinations held, both cantonal and federal authorities?

Only federal, except Geneva.

If an examination has been passed before the federal board and a diploma is granted, does this carry with it the authority to practice in any Canton in Switzerland without any further examination?

Yes.

Is the practice of dentistry controlled by the cantonal authorities, each for themselves, or is there a federal law or control upon the subject?

The practice is controlled by the cantonal authorities.

What procedure is necessary in order to enable an American dentist to practice as an assistant to a recognized practitioner?

Differs in different Cantons.

Is it necessary that he should speak any special language, or must he present a diploma from any special American college?

Language is immaterial, and no American college is especially recognized (vide cantonal laws).

In the event of the absence of the principal from any cause, would the assistant be allowed to carry on the practice for an indefinite period, or is a certain length of time provided for?

In most of the cantonal laws, no provision is made for this eventuality. In the Canton of Zurich, one year is allowed.

How many recognized American practitioners are there in Switzerland?

There are 327 dentists in Switzerland, and about 50 to 75 Americans among them.

How many assistants?

Impossible to ascertain, but to my knowledge 5 Americans.

How many practitioners and assistants calling themselves "American dentists" are practicing here?

Impossible to ascertain.

Is it the general practice for them to style themselves "American dentists" without having passed an examination at an American dental college?

No. Formerly, some men had "fake diplomas," bought in America and elsewhere, but they were prosecuted.

What are the usual charges of American dentists in Switzerland, and how do they compare with the charges made at home?

Examination		$0. 60 to $2. 00
Plastic fillings		1. 00 to 3. 00
Nerve treatment	per sitting	0. 60 to 2. 00
Gold fillings		3. 00 to 20. 00
Crowns	each	10. 00 to 30. 00
Bridge work	per tooth	10. 00 to 30. 00

These average charges are practically the same as those of a first-class dentist in America.

In your opinion, does Switzerland present a good field for a bright American dentist who would like to spend a few years abroad, or is the profession already overcrowded here?

There is always room at the top of a ladder, and Switzerland is not any more overcrowded than America. An American who wishes to spend a few years here would do best by becoming an assistant or partner to some good dentist.

I should be glad to have any other information which you may consider of value.

You cover the whole ground with your questions.

The provision of the federal law upon the subject of the examination of dentists is given hereunder:

EXAMINATION OF DENTISTS.

The examination of dentists is divided into three different parts.

Article 46.

(1) Examination in the natural sciences.
(2) Anatomical-physiological examination.
(3) Practical examination in the different branches of dentistry.

EXAMINATION IN THE NATURAL SCIENCES.

(1) In order to be admitted to this examination, the candidate has to bring:
(*a*) A certificate of "maturity" [which is equal to an American high-school diploma].
(*b*) A certificate of having attended theoretical lectures on—
(1) Physics.
(2) Inorganic chemistry.
(3) Organic chemistry.
(4) Botany.
(5) Zoology.
(6) Comparative anatomy.
(*c*) A certificate of exercises in the chemical laboratory—
(7) In qualitative analysis.
(8) The elements of quantitative analysis.

Article 47.

The examination in the natural sciences is oral and comprises:
(1) Physics.
(2) Inorganic and organic chemistry.
(3) Botany.
(4) Zoology and comparative anatomy.
Four notes are given.

DENTISTS' ANATOMICAL-PHYSIOLOGICAL EXAMINATION.

Article 63.

In order to be admitted to this examination, the candidate must bring:
(*a*) Proof of having passed the above-named examination.
(*b*) A testimonial of attendance at the following lectures:
(1) Anatomy.
(2) Histology.
(3) Embryology.
(4) Physiology.

(*c*) A certificate of attendance at the following practical courses:

(5) Exercises in preparing muscles, vessels, nerves of the head and neck.

(6) Exercises in the use of the microscope.

Article 64.

The anatomical-physiological examination is oral and comprises:

(1) Anatomy.

(2) Histology.

(3) Physiology.

with special regard to dentistry.

A note is given for every branch.

DENTISTS' EXAMINATION IN THEIR SPECIAL BRANCH.

Article 65.

Candidates who wish to pass this examination have to bring:

(*a*) Proof of having successfully passed the anatomical-physiological examination for surgeons or dentists.

(*b*) A certificate of having attended the following lectures:

(1) On general pathology and pathological anatomy.

(2) General surgery.

(3) Special pathology and therapeutics of the oral cavity.

(*c*) Certificates of attendance at the following hospitals:

(4) Surgical (two half years).

(5) At a dentist's (two half years).

(*d*) Certificate of having worked in a mechanical laboratory during three half years.

(*e*) Certificate of having worked three half years at the dental chair, especially with different methods for filling teeth.

The requirements mentioned under *b* and *c* can be obtained at a special school or at any university the advisers approve of; those under *d* and *e* can be acquired with a recognized dentist. In the latter case, the candidate must produce a certificate of two years' apprenticeship at least, which is only accepted when the anatomical-physiological examination has been passed.

In doubtful cases, the advisers decide whether the latter testimonials can be accepted.

Article 66.

The dentists' special examination is both practical and oral.

Article 67.

The practical examination requires:

(1) The written answers to two questions drawn by lot on any branch of the science of dentistry.

(2) Examination and diagnosis of one or two patients with morbid affections of the mouth. The examiner can order the candidate to undertake necessary operations at once.

(3) The filling of two decayed teeth. One of these fillings must be made with gold.

(4) The making and fitting of a denture. The candidate may choose the materials. The patient may also be chosen by him.

Four notes are given.

Article 68.

The oral examination comprises the following branches:

(1) Special pathological anatomy of the oral cavity and organs of mastication, with regard to general pathological anatomy.

(2) Hygiene of the mouth and therapeutics of the oral cavity with reference to materia medica and narcosis.

Two notes are given.

It is further provided in article 87 of the law above quoted that those entitled to practice in Switzerland without passing the examination are—

Those persons who have a diploma from a foreign university allowing them to practice in that country, if a treaty with that state stipulates reciprocity. In exceptional cases it depends on the advisers to say, upon the given proofs, on what condition a diploma will be granted.

In the Cantons of Glarus and Appenzell-am-Rhodes anybody is permitted to practice all branches of medicine without a diploma, and in the Canton of Geneva anyone having passed the dental examination at the University of Geneva is given a diploma which entitles him to practice in that Canton only.

From the foregoing, it will be seen that the theoretical knowledge required of a graduate in dentistry compares very favorably with the requirements in the United States; but it is the general opinion of dentists capable of judging that the poorest American dental college teaches its students more of practical value than the best here, and dental schools on the Continent give their students only scant opportunity to become good gold fillers and crown and bridge workers.

It will also be seen that the requirements of the Swiss laws and regulations are such that to become a regular recognized practitioner would not only be extremely difficult for a foreigner, but would consume far more time than anyone would care to give.

The question, however, of becoming an assistant to a recognized practitioner is worthy of consideration. From a careful review of the different cantonal laws, I find that, while these differ in unessential points, none require that an examination be passed by an assistant, and it is only a question of obtaining the consent of the local authorities, which is usually granted. It is not necessary that the applicant should speak any special language. Of such American assistants, there are already a few in Switzerland, and the profits of the business are usually divided between the parties in interest according to the agreement between them.

The cities offering the best inducements would be Lucerne, Basel, Geneva, St. Gall, Lausanne, Berne, Friburg, etc.

HENRY H. MORGAN,

AARAU, *May 25, 1900.* *Consul.*

SWISS ACCIDENT AND MILITARY INSURANCE LAW.

Consul-General DuBois, of St. Gall, under date of May 21, 1900, writes:

The sick, accident, and military insurance law was voted upon May 20, 1900, and was defeated by a two-thirds vote.

In October, 1890, by a vote of 283,000 against 92,000, the Swiss people adopted a constitutional provision providing for the establishment, by a direct vote of the citizens, of a system of obligatory insurance in case of sickness or accident in which the Government, the employers of labor, and labor itself were to participate. The Government was to provide 20 per cent of the entire premium, labor 20 per cent, and the employers of labor 60 per cent. The text of the proposed law contained four hundred articles, among which was a military insurance clause which met some opposition among the military classes.

The law has now been defeated by about 195,000 votes. Of the twenty-two Cantons voting, only Glarus gave a majority in favor of the law.

The causes of the defeat of this measure are various. The voters of the agricultural districts considered the law in favor of the industrial centers. Those engaged in house industries were dissatisfied with the provision which made the insurance compulsory for some and optional with others. Strong opposition was also developed among large manufacturers, especially in the silk industry, who were convinced that under the new law they would be more heavily taxed than under the noncompulsory system of insurance at present in operation.

There was another element, called the antifederal-expense class, which helped to defeat the measure, because the execution of the law would require a large number of new officials, thus increasing the national expenditures.

GERMAN SAMPLE ROOM IN CONSTANTINOPLE.

A sample room of German wares is about to be opened in Constantinople.

The selling terms vary according to the articles. Metals, such as copper, lead, zinc, iron, steel, etc., are as a rule sold for cash, whereas six months' time must be granted on sales of textile goods, etc.

In the trade with Constantinople, terms play an important rôle, in view of the fact that the merchant there sells his goods in the interior of Asia Minor on credits of ten or even twelve months, and consequently can not pay cash in buying.

The following are among the articles for which there is a good market in Constantinople: Silks, velvets; silk, woolen, and linen plushes; umbrella covering (silk and cotton), cloth, hosiery and underwear, merinos and coatings, calicoes, flannels, shawls, upholstery goods, needles and pins, thread and twine, felt and straw hats, imitations of English tapestry, enameled ware, tinware, cheap knives, cheap scissors, hammers, files, hatchets, etc.; furniture, stoves, lamps, drugs, machinery and mineral oil, etc.

Prices are of prime importance. If an article is expensive, it can not be sold in the Orient.

WALTER SCHUMANN,

MAINZ, *May 16, 1900.* *Consul.*

CHANGE IN TURKISH TARIFF.

Consul-General Dickinson sends the following from Constantinople, June 12, 1900:

By an imperial iradé, a new tariff will go into operation on the 14th of June, affecting goods and products from Roumania, Greece, Servia, Montenegro, and Bulgaria and materially increasing the duties on imports from these countries entering Turkish ports. As the duties on products from countries having the favored-nation clause in their treaties are but 8 per cent ad valorem, this new tariff will practically prohibit importations from Roumania, Greece, Servia, Montenegro, and Bulgaria.

For example, a large percentage of the flour and maize used in this country is imported from Roumania and Bulgaria. The duty on flour under the new tariff is 50 piasters ($2.20) per 100 kilograms (220 pounds), and the duty on wheat and maize is 30 piasters ($1.32) per 100 kilograms, which is equal to fully 60 per cent of the value of these products in this market.

I should also note that, in anticipation of this new tariff, the customs authorities are already requiring a certificate of a Turkish consul with each importation entering this market showing that the goods or products do not come from the countries to which the special tariff applies.

There is a well-authenticated report in the newspapers that the leading merchants of Athens are urging the Grecian Government to impose heavy duties upon Turkish products entering Grecian ports. They claim that Greece buys Turkish goods of the value of at least

15,000,000 francs ($2,895,000) annually and sells to Turkey only about one-third of that amount, and they insist that if the new Turkish tariff is maintained against Greece, a commercial war of retaliation should follow.

The following is the tariff:

Articles.	Tare per 100 kilograms.	Unit.	Duty.	
			*Piasters.**	
Live stock:				
Rams, ewes, and sheep		Per head	16	$0.70
Bucks and goats		do	20	.88
Lambs and kids		do	10	.44
Pigs		do	60	2.64
Animal products:				
Butter—				
Fresh and salted	14, cases and barrels.	Per 100 kilos.	200	8.80
Siberian	7, baskets	do	200	8.80
Artificial	4, bales	do		
Casher and other cheese	7, cases and bales; 7, baskets or 4 bales.	do	150	6.60
Grease and other unwholesome butters	13, cases or 9 baskets or 4 bales.	do	75	3.30
Cereals and vegetables:				
Wheat		do	30	1.32
Barley, oats, millet, Sarasin and Kapladja		do	20	.88
Mill products:				
Flour		do	50	2.20
Oat, barley, maize, and other flours		do	30	1.32
Crushed wheat, semolina, barley husked and shelled, wheat.		do	40	1.76
Liquids and vinegars:				
Common wines, grape or fruit must—				
In barrels		do	450	19.80
In bottles		do	600	26.40
Vinegars:				
In barrels		do	75	3.30
In bottles		do	150	6.60
Alcohol in barrels		do	300	13.20
Brandy, rum, raki, and other liquids and drinks—				
In barrels		do	600	26.40
In bottles or demijohns		do	800	35.20
Spices:				
Red pepper	17, cases and barrels; 13, panniers and 4 baskets.	do	250	11.00
Ropes:				
Hawsers and ropes	13, cases and barrels; 9, baskets and 6 bales.	do	100	4.40
Strap bands and other ropemakers' products.		do	180	7.92
Woolen goods:				
Serges, etc	20, cases and barrels; 13, baskets; 7, bales.	do	600	26.40
Articles used in tannery:				
Valonea nuts		do	250	11.00
Soap:				
Soft soaps (green, brown, etc.)	6 bales	do	240	10.50
Hard soaps (nonscented)	2 barrels	do	240	10.50

* 1 piaster=4.4 cents.

Articles.	Tare per 100 kilograms.	Unit.	Duty.	
Fruits and vegetables:				
Green fruits—			*Piasters.*	
Oranges	23 cases	Per 100 kilos.	60	$2.64
Citrons	16 cases and barrels	do	60	2.64
Green olives, apples, and pears	7 baskets and 4 barrels.	do	60	2.64
Other fruits		do	100	4.40
Dried fruits—				
Figs		do	180	7.92
Almonds, nuts		do	300	13.20
Cucumber seeds, nuts		do	80	3.52
Locusts (beans), dried raisins, figs, and other dried fruits.		do	240	10.50
Salted olives	14, cases and barrels; 7, baskets; 4, bales.	do	180	7.92
Oils, etc.:				
Olive oil—				
In barrels or in large pitchers of 15 kilograms.	11, cases and barrels; 24, barrels; 16, pitchers.	do	100	4.40
In bottle or in pitchers under 15 kilograms in weight.		do	450	19.80
Skins:				
Tanned skins		do	600	26.40
Saddle leather, Russian leather, brown and black leathers.		do	750	33.00
Calfskins, goatskins, etc., skins not mentioned above.	8, cases and barrels; 13, baskets; 6, bales.	do	1,000	44.00
Colored leather		do	1,200	52.80
Varnished leather, horsehides, etc		do	1,200	52.80
Glove skins		do	1,200	52.80
Sponges		do	200	8.80
Cotton goods		do	240	10.50

The Department has also received copy of the tariff from Mr. Griscom, chargé at Constantinople, under date of June 26, 1900. Mr. Griscom adds that the Ottoman Government has decided to require certificates of origin on all articles imported into Turkey of a similar nature to those of Roumania, Bulgaria, etc., against which the new tariff will operate. This new requirement was to be put into force July 10, a month from the date of the Porte's note notifying the foreign legations in Constantinople of the changes. The certificate must be duly legalized by the Ottoman consuls. The new requirement has met with objections on the part of foreign representatives, and Mr. Griscom has represented to the Minister for Foreign Affairs that the measure was unnecessary as regards the United States, inasmuch as it is inconceivable that merchandise would be shipped from Roumania, Greece, etc., to the United States, and thence to Turkey, in order to avoid paying the customs duty. The month's time was also pointed out to be too short a period in which to notify United States exporters of the change. The minister informed Mr.

Griscom that an effort would be made to exclude the United States from the requirement; also, that the month's time would be considered to begin from the date when United States merchants received the notification.

RUSSIAN DUTIES ON LEATHER GOODS.

Consul-General Holloway writes from St. Petersburg, May 1, 1900, in regard to the statement of Russian duties on leather goods which appeared in CONSULAR REPORTS No. 237, June, 1900 (ADVANCE SHEETS No. 707, April 18), in a letter from a St. Petersburg shoe dealer to Acting Consul Monaghan, of Chemnitz. The correct duties, says Mr. Holloway, are as follows:

Extracts from the Russian tariff laws covering leather goods.

Article 57.—Goods made of leather.	Duties per pound (Russian).*	
	Gold.	U.S. currency.
(1) Foot wear of every kind (excepting goods specially mentioned), finished and dressed	*Rubles.* $1.50	$0.772
Leather of every kind cut ready for shoes and small goods	1.125	.578
(2) Foot wear for ladies, of silk material and kid, finished and dressed	3.00	1.54
Preferential tariff, foot wear for ladies of kid, finished and dressed	2.55	1.313
(3) Leather gloves of all kinds, manufactures of chamois, patent leather, morocco, parchment, excepting shoes and surgical apparatus	4.50	2.317
Preferential tariff:		
Leather gloves of all kinds	3.825	1.968
Manufactures of chamois, patent leather, morocco, parchment, excepting shoes and surgical apparatus	3.00	1.54
(4) Harness and belongings, saddlers' goods, riding whips of leather thongs	.825	.43
(5) Traveling trunks, traveling bags, traveling and hunting pouches of leather, thick jute and hemp cloth, leather notebooks and portfolios, leather finished for bookbinding; leather fabrics of all sorts not specially mentioned; also in combination with metallic parts or other materials, if not belonging to the class of valuable ornaments (bijouterie)	1.05	.54
Preferential tariff, notebooks and portfolios of chamois, patent leather, morocco, parchment	1.05	.54
(6) Machine belts, unseamed and seamed, leather picks for weaving looms, small circular driving belts, whips, buckets, etc., and similar coarse leather manufactures	.30	.154
Supplement:		
Ladies' shoes of chamois	1.50	.772
Traveling bags, purses, cigar cases, and other similar articles; also if made of morocco or chamois, as per article 57 (5), same as notebooks	1.05	.54

* 1 Russian pound = 14 ounces; 1 gold ruble = 51.5 cents.

THE LIQUOR TRAFFIC IN RUSSIA.

The Russian Government has for many years been laboring and discussing means to diminish the almost universal use of liquor among the laboring classes, as one Minister of Finance put it, "to save the population from the baneful influence of the innkeepers, who, in order to make large profits, adulterated their spirits with noxious and deleterious substances which were proving ruinous to the lower classes. The average peasant was not content with remaining in a public house until he had spent his last farthing, but often pawned his clothes, furniture, and future crops. The public houses were acknowledged to be the most powerful agents of ruin and disorganization in the economic life of the Russian people and threatened the impoverishment of the whole agricultural population."

One of the first steps toward preventing the unrestricted sale of liquor was to confine its sale to places where food was required to be furnished with each order for liquor, in order to prevent taking one drink after another without food; severe penalties were also provided for selling on credit, for receiving articles in pawn for drinks, or for bartering spirits for produce or future labor, etc. The receiving of stolen property entailed the loss of license, and provision was made for closing public houses that evaded or violated the laws.

The Government established a number of shops in various parts of cities for the sale of vodki, brandy, and spirits in corked bottles. It is not permitted to be drunk on the premises, but thirsty customers purchase small bottles and step outside of the door, draw the cork, drink the contents, and return the empty bottle, for which they receive a few kopecks. The number of these shops is regulated by the population. The license was increased from 150 rubles to 1,100 rubles ($77 to $566) for public houses, which reduced the number one-half.

It was first proposed in 1885 that the Government should assume control of the sale of liquor; but the revenue from the sale of liquor amounted at that time to 275,000,000 rubles ($174,900,000) per year, and it was argued the Government monopoly would reduce this so materially as to affect the revenues. Hence it was delayed until the famine of 1891, and the lamentable state of things it revealed hastened the reform, since which time the new system has been organized and introduced in half of the Empire, including thirty-five provinces, covering 1,320,000 square miles, with a population of 61,000,000, an area greater than the United Kingdom, France, Germany, and the Netherlands.

Under the present system, the Government dictates the quantity

and quality of spirits manufactured, purchases a very large percentage of the output, and permits the sale of the surplus under proper regulations, for manufacturing purposes, with the intention of furnishing the consumer with pure spirits, thus mitigating and preventing such abuses as are directly attributable to the excessive use of bad liquor and improving the morality and prosperity of the masses. The Minister of Finance has repeatedly declared that the purpose of the Government in controlling the liquor business was not intended to produce any direct increase of the revenue; whatever increase there might be would come in consequence of the prevention of abuses which could be avoided only by Government control.

The Russian peasant classes drink only vodki, which is distilled from rye and is sold at the average price of $1.40 per gallon, whether in quantities of 1 or 10,000 gallons. The Government requires that the proof of vodki and brandy shall be 40° and that of spirits of wine from 90° to 95°.

The official report for 1898 has just been made public and states that the amount of capital employed during that year was $148,200,000. There were 1,381 brandy distilleries, 252 spirit distilleries, and 27,120 places where distilled liquors were sold. Besides this, fermented liquor was sold at 14,699 saloons. The bottling was carried on at 357 storehouses. The sales amounted to 84,003,752 gallons, the gross receipts being $117,326,270, the expenses $36,594,870, and the excise duty $64,117,500. The net income to the Government from sales was $16,737,500.

The following table shows the quantity of spirits manufactured and the supply on hand in 1898 and 1899:

Description.	European Russia.	Asiatic Russia.*	Total.
	Number.	*Number.*	*Number.*
Distilleries	1,769	36	1,805
	Gallons.†	*Gallons.*†	*Gallons.*†
Quantity of spirits got by distillation in 1899	171,291,204.9	36,349,900.4	207,641,105.3
Supplies on hand:			
Raw—			
Total	22,749,039	1,315,062	24,064,101
Government	3,733,519.6	.....	3,733,519.6
Rectified—			
Total	14,086,461.6	1,040,404.5	15,126,866.1
Government	9,982,980	.....	9,982,980
Belonging to Government—			
Bottled	820,287	.....	820,287
Unbottled	8,537,918.4	.....	8,537,918.4
Total supplies:			
1898—			
Total	48,933,196.2	2,050,647.1	51,183,843.3
Government	22,600,871.9	.....	22,600,871.9
1899—			
Total	46,193,706	2,355,466.5	48,549,172.5
Government	23,084,703	.....	23,084,703

* Except the Amur district, from which statistics are not furnished. † 40 per cent.

In governments where the sale of liquor is controlled by the government, temperance societies have been organized, with Prince Oldenburg, a distinguished philanthropist of St. Petersburg, as president. These have opened reading rooms with libraries and restaurants near public gardens and squares—where large numbers of working people congregate—and sell cheap and good food with such temperance drinks as tea, milk, and kvass made from cranberries and black bread. One of these societies has constructed two "floating restaurants," one of which will seat six hundred people and the other three hundred. These boats are towed to points on the Neva where workmen are employed or congregate. An open theater has been established on Petrovsky Island, where a good class of plays is given at a nominal price. Some of the public parks are also supplied with apparatus to encourage open-air sports.

The following will show the growth of the movement:

Description.	1895 (4 provinces).	1896 (13 provinces).	1897 (20 provinces).	1898 (25 provinces).
Tea rooms and tea restaurants	120	294	879	1,714
Reading rooms and libraries	26	159	241	943
Popular readings in hired halls	6	41	548	654
Popular theaters	3	20	112	181
Theatrical representations in hired halls not appertaining to temperance societies	.....	55	217	455

The Government is encouraging these societies, having appropriated the following amounts to aid in the prosecution of their work:

Year.	Number of provinces.	Amount.	
		Rubles.	
1895	4	203,400	$104,751
1896	13	304,250	156,681
1897	20	832,950	428,969
1898	35	1,866,000	960,990
1899	30	1,876,800	966,552
1900	43	2,506,250	1,290,719

Of the above, 720,000 rubles ($370,800) have been expended in the province of St. Petersburg.

It is expected that by the end of 1902, every one of the seventy-eight provinces of Russia, including Siberia, will have been included in the sphere of activity of these societies.

The Société Russe d'Hygiéne Publique has been seeking information from members in the various provinces where the Government has control of the manufacture and sale of spirits as to the effects of the law and the decrease in drunkenness. The friends of the measure confess that the testimony thus far is so conflicting as to be

unsatisfactory, but they hope for better results after the law has been inaugurated in all the provinces of Russia.

The leading newspaper of Russia has repeatedly stated that the most important impediment in the way of Russia's rapid progress lies in those "twin relics of barbarism"—illiteracy and intemperance among the peasant classes, which comprise 75 per cent of the population.

The following table shows the financial results of the working of the Government monopoly:

Receipts and expenditures.	1895.		1896.	
	Rubles *		*Rubles.**	
Gross receipts	10,962,723	$5,645,802	27,788,760	$14,311,211
Working expenses	7,009,736	3,610,014	24,268,663	12,498,361
Sinking fund	1,422,673	732,677	3,375,156	1,738,185
Total expenses	8,432,408	4,342,690	27,643,819	14,236,567
Net profit	2,530,315	1,303,112	144,941	74,645

Receipts and expenditures.	1897.		1898.	
	*Rubles.**		*Rubles.**	
Gross receipts	52,447,761	$27,010,597	104,163,762	$52,614,337
Working expenses	41,990,665	21,625,192	64,300,299	33,114,654
Sinking fund	5,787,101	2,980,357	6,261,526 1,073,264	3,224,686 552,731
Total expenses	47,777,766	24,605,549	7,635,089	3,932,071
Net profit	4,669,995	2,405,047	30,528,673	15,722,267

* The value of the ruble is 51.5 cents in United States currency.

W. R. HOLLOWAY,
Consul-General.

ST. PETERSBURG, *May 18, 1900.*

FARM LABORERS' WAGES IN SWEDEN.

Statistical reports on the condition of the farm laborers in this Kingdom are somewhat meager. The gathering of facts and figures relating to the prices paid the tillers of the soil was commenced only in 1865. Since 1877, reports have been issued yearly by the statistical bureau. The last refers to the year 1898 and shows that the average yearly wage of a farm hand was 204 kronor ($54.67) and of a woman servant 105 kronor ($28.14). The cost to the employer of the above-mentioned persons, counting their food, lodging, and wages, is computed at 455 kronor ($121.94) for men and 252 kronor ($67.54) for women. The wages paid in the summer season to day farm laborers were 2.08 kronor (55.7 cents) for men and 1.18 kronor (31.6 cents) for women. During the winter season, only

1.44 kronor (38.6 cents) and 0.84 krone (22.5 cents) were paid for men and women. These figures are the average. In many instances, as high as 275 kronor ($73.70) has been paid for the year. The best price paid for farm labor is in the northern provinces. The figures named above are the highest that have ever prevailed in this Kingdom and indicate that the condition of labor is improving from year to year.

EDWARD D. WINSLOW,
STOCKHOLM, *May 10, 1900.* *Consul-General.*

AMERICAN PRODUCTS IN SIBERIA.

The Novoe Vremja, the leading newspaper of Russia, in a recent article, says:

This last winter has witnessed an enormous import of American products into the Amur province. These products are not fancy articles intended for the rich and well-to-do, but substantial articles made necessary by the demands of every-day life. These products are, for example, flour, iron, iron and copper ware, household utensils, etc. They all come through the free port of Vladivostock and are then sent by rail to Chabarowsk and Blagowietschleck. They have already reached Stretensk, Tschita, and Irkutsk, the center of Siberian trade. These products are handled in quantities and are sold with the skill known only to the American.

The railroads recently built, together with steamboat connections on the rivers, have opened up great fields for material development in Siberia. As yet, but little capital has been invested in the building of mills and foundries in that part of the country. The lack of such industries has been very favorable to the introduction of American products.

Siberian merchants are beginning to feel the pressure. Some are demanding the exclusion of American imports. The buyers of American products protest against any such action on the ground that in Siberia there is an industrial standstill, no enterprising spirit exists, and that prices are extremely high. During the time that we are quarreling about a tariff and the abolishment of the free port of Vladivostock, the Americans will have taken possession of the Siberian markets and erected factories and mills of all kinds. We are now building a railway into China, but the chances are that the Americans will benefit more from the Chinese markets than the Russians. Such, therefore, is the future of eastern Siberia, and the future of western Siberia will not be very different.

This sounds like the tone of an alarmist and is without question exaggerated. However, it is useless to deny that foreign capital and intelligence have found a profitable field in Siberia.

Our trade with Russia will admit of a much greater increase. During the fiscal year 1898–99, we sold only $8,500,000 worth of goods to the Russian Empire. A serious handicap in our trade relations with Russia is the lack of proper steamship connections.

A line of freight steamers of about 4,000 tons capacity should be established between New York and St. Petersburg. With cheaper transportation rates to Russia, there is no question that we could greatly increase our trade with that Empire.

ERNEST L. HARRIS,
Consular Agent.

EIBENSTOCK, *June 12, 1900.*

EDUCATIONAL PROGRESS IN EASTERN SIBERIA.

Considering the peculiar formation of this seaboard province, extending from 100° to 166° longitude east of Poulkof (140° to 170° east of Greenwich) and comprising the Amur district, the island of Saghalin, the Kamchatka Peninsula, and the Anadyr and Commander islands, with only five cities, many mere settlements, and a varied population, the educational exhibit is very creditable, as the following official figures will illustrate:

The total number of public schools in 1897–98 was 116.

At Habarofsk.—Preparatory school for the Siberian cadet corps; technical school (railway); town school for boys, course two years; a school for girls; gymnasium for girls; parish or church school.

At Vladivostock.—Classical gymnasium for boys; gymnasium for girls; town school for boys, three years' course; first elementary school; second elementary school; school for the naval department; the Alexandrof school (military); the Russian Chinese school (city); parish church school.

At Nikolaefsk.—Town school for boys, three years; parish church school.

At Okhotsk.—Parish church school.

At Petrapaulofsk.—Town school for boys and girls.

In South Ussuri district.—Forty country and parish schools.

In the Habarofsk district.—Seven country and five missionary schools.

In the Oodsk district.—Seven country schools.

In the Okhotsk district.—One school for the Tungusees and one parish church school.

In the Petrapaulofsk district.—Eight church schools.

In the Gijinsk district.—One parish church school.

In the Anadyr district.—One parish church school.

On the Commander Islands.—Two country schools.

In 1897–98, the number of schools showed an increase of 10 and the number of pupils an increase of 755, as compared with the statistics of the previous year.

The following table shows the number of schools and the Russian population:

Towns and districts.	Population.	Number of schools.	Number of schools according to population in 1897–98.
Vladivostock	17,279	9	1,920
Habarofsk	11,227	7	1,604
Nikolaefsk	4,492	240	2,246
District of South Ussuri	88,493	40	2,212
District of Cossack Ussuri	17,756	23	772
District of Habarofsk	11,750	12	980
District of Oodsk	12,075	7	1,725
District of Petrapaulofsk	8,400	9	933
District of Gijinsk	7,571	1	7,571
District of Okhotsk	4,810	3	1,603
District of Anadyr	12,425	1	12,425
District of Commander Islands	652	2	326

The following shows the number of children of school age between the ages of 7 and 12 and 14 and 17. According to the statistics, the number of children received into the schools equals 15 per cent of all the Russian population.

Towns and districts.	Number of pupils.		Percentage of children in schools in 1897–98.
	Between ages of 7 and 12.	Between ages of 14 and 17.	
Vladivostock	2,586	690	26.7
Habarofsk	1,745	590	33.8
Nikolaefsk	641	112	17.3
District of South Ussuri	12,156	1,388	11.4
District of Cossack Ussuri	1,901	653	34.3
District of Habarofsk	1,688	239	14.1
District of Oodsk	2,244	202	9
District of Okhotsk	711	48	6.7
District of Petrapaulofsk	1,331	155	11.8
District of Anadyr	1,845	53	2.8
District of Commander Islands	102	102	100

In Vladivostock, evening classes were begun in the autumn of 1898 for the study of Chinese and English; they have been continued during the present winter and have met with reasonable success. The Chinese classes have been transferred to the Institute for Eastern Languages, but the English classes have remained under the patronage of the city. The charge for tuition is $1 per month, three lessons of two hours and a half each per week. In the winter of 1898–99, more than 150 students were enrolled, about half being women. The Chinese department began with some 60 pupils. At the close of the session of 1898–99, only 50 pupils remained in the English department and a much smaller proportion in the Chinese section. The

instruction in both lines seemed to be of a very superior character. There is quite a rivalry among the young Chinese employed in the stores here, in learning English. Some have entered the Russian Chinese schools, and others are asking the few Americans here to teach them. The Institute for Eastern Languages, whose opening was reported last November,* is doing a good work, although not overburdened with pupils. There are now about 50 students—Chinese, Japanese, Korean, Manchus, and Mongolians.

SOCIETIES, LIBRARIES, AND MUSEUMS.

Most of the officials—military, naval, and civil—are men of education and professional training (many are not natives of Siberia), and the lines of the various literary, scientific, and philosophical societies of St. Petersburg are continued here. A vast amount of valuable data is available only to those who read Russian readily. Formerly, many books of science and research were accompanied with French or German translations, but this has been mainly abandoned.

In all the governments of western and eastern Siberia, libraries, museums, and societies are found, patronized by most of the officials, while many important contributions have come from learned convicts. A branch of the Imperial Russian Geographical Society is located at Habarofsk, and a museum and library are connected with it. A subdivision of this branch—the Society for the Investigation of the Amur Province—is at Vladivostock. It has an excellent museum and a fairly good library, with, I regret to say, very few publications of the United States.

The best-equipped library is the Amur branch of the Imperial Royal Geographical Society at Habarofsk, and next that of the Naval Club at Vladivostock, another institution which would gladly receive many of the valuable publications of the United States. Throughout the provinces there are small libraries in schools, regiments, and police departments. There is a quasi-public library at Nikolsk, in the South Ussuri district, and a small library in the city hall at Vladivostock, with a reading room attached. A circulating library occupies part of a printing office, and is well patronized. A publisher—Theodore Pavlenko—has lately given 100,000 rubles ($51,500) to open 2,000 public libraries.

There is a medical association composed of the doctors of the naval and military branches of the imperial service in the Amur and Maritime provinces. It has a northern and southern branch, and will hold a session at Habarofsk next September. The southern branch opened a Pasteur institute at Vladivostock last year.

*ADVANCE SHEETS No. 630 (January 17, 1900); CONSULAR REPORTS No. 234 (March, 1900).

NEWSPAPERS.

There are four newspapers published at Habarofsk, one the official organ of the Government and three published at intervals.

At Vladivostock, there are four—Dalny Vostok (the Far East), Vostochny Vestnik (the Eastern Herald), Vladivostock, and Listok Oblgavany (the Advertiser)—published from two to four times per week, containing telegrams via St. Petersburg and Hongkong. There is supposed to be a censorship of the press in Siberia, as in European Russia, but its effects are scarcely noticeable to the foreigner. The same holds true of the mail matter received.

NOTES.

Last year, a Japanese Russian school was opened at Blagovestchensk, where a Japanese colony has been established, as also in Manchuria. Reports say the Japanese scholars are very diligent, make great progress, and learn easily to read and write Russian. The bishop of this diocese is my authority that the same holds good of the mass of Koreans now scattered in this region as laborers. Their children are bright scholars, and both parents and children readily become followers of the Russian Church.

In the programme of reforms are plans for agricultural schools throughout the Empire.

A summer school for teachers will be held at Nikolsk during July or August. The project for a large mechanical school at Nikolsk in connection with the Great Siberian Railroad is completed, and the building will be proceeded with. The cost is estimated at 100,000 rubles ($51,500).

A school for river navigation has just been opened at Irkutsk.

R. T. GREENER,
Commercial Agent.

VLADIVOSTOCK, *April 17, 1900.*

TEMPORARY CUSTOMS REGULATIONS AT VLADIVOSTOCK.

Commercial Agent Greener, of Vladivostock, under date of May 1, 1900, transmits translation of the regulations temporarily promulgated for the newly established customs service at that port, as follows:

(1) Two custom-house officials are appointed for each of the ports of Vladivostock and Nikolaefsk; a senior as the manager and a junior official as a member and cashier of the custom-house.

(2) The examination of imported merchandise is to be made exclusively on shore, and inspectors are appointed to serve at the place where the sea vessels are discharging. If the custom-house finds it necessary, inspectors may be sent on board

of the vessels themselves, whenever the cargo is discharged into smaller vessels to be sent to places where there are no custom-house officials.

(3) Immediately upon the arrival in port of a merchant vessel, her captain is obliged to appear at the local custom-house and present bill of lading and statement of ship stores and goods belonging to the captain, crew, and passengers not mentioned in the bill of lading.

(4) According to these documents, the custom-house official makes a general list of the whole cargo over his signature. The list must show (*a*) the names of the consignees, (*b*) kind of packages, (*c*) marks on the packages, (*d*) kind of merchandise, and (*e*) gross weight. Such a list may be made out by the captain himself, but it must subsequently be examined by the official and signed by him. The discharging of the cargo must be effected according to this document. In case the packages landed do not agree with the cargo list, a note must be made in the proper column of the list.

(5) From the ship stores subject to duty, the captain is forbidden to land anything without the knowledge of the inspectors and payment of duty. This is also forbidden to the crew.

(6) Passengers are allowed to go on shore immediately upon arrival in port. Their baggage is examined on shore, or, if so ordered by the custom-house, on board of the vessel. The inspector examines the baggage in the presence of the custom-house official. Forbidden publications are delivered to the authorities and a statement made, to be signed by the searchers and the passenger.

(7) The discharging of the cargo must be done under the supervision of inspectors. Any dutiable article carried stealthily on shore is to be confiscated and sold at auction. Out of the amount realized by sale, the amount of duty is to be collected and the remainder donated to the seizer of the contraband. A separate statement must be made of every such case.

(8) The landing of goods may be effected during any time of the day.

(9) If any dutiable package should be missing and no explanation thereof be made on the bill of lading or official statement from place of shipment, the captain is compelled to deposit a security equal to the duty on the missing package, and the gross weight is estimated as the highest on similar merchandise. This deposit will be returned to the captain or owner of the steamship on proof of the package having been landed in another port.

(10) When the cargo is being landed, the packages must be assorted and merchandise free of duty delivered into the possession of the consignee as soon as examined by the custom-house official. The consignee signs the receipt on the cargo list. Until Government warehouses are built, the dutiable articles are to be housed in private warehouses after undergoing preliminary examination by a custom-house official. Such warehouse must be sealed and locked up by the inspector daily, after the termination of work, and never opened without examination of seal and lock. Such proceeding is to be followed until the whole duty is paid.

(11) Should any package be missing in the warehouse the consignee must, without delay, pay the duty according to the estimate, as already explained.

(12) The examination of dutiable merchandise is noted by a custom-house official in a special book (Form No. 2), which must contain the following information: (1) The name of the vessel, number of entry, and number of bill of lading; (2) the name of the consignee; (3) marks and numbers, description of package, and number of packages; (4) the quality of the merchandise and the corresponding paragraph of the European tariff in virtue of which the duty is to be levied; (5) the quantity of the merchandise, whether counted, weighed, or by number of packages; (6) the estimated duty. The payment of the duty is certified to by the signatures of the custom-house official and of the merchant under the date of the examination of the goods.

(13) The contents of packages with nondutiable articles are examined according to bills of lading by opening at random a few packages, so as to prevent any contraband importation; a special stamp is then placed on the bill of lading and the merchandise released.

Remark.—The consignee supplies the necessary number of laborers required for making the examination, stamping packages, etc.

(14) All merchandise of Russian origin arriving in port with leaden seals attached to the packages need not be examined, but may be delivered according to certificates of the custom-house whence shipped. In case of damage to the seals or if none have been attached by the Russian custom-house in the port of shipment, the certificate alone may serve as proof of Russian origin; but in such cases the merchandise is to be verified. If there is no accompanying certificate and the seals are damaged, the merchandise is subject to the payment of duty as if of foreign origin; but the consignee may reclaim the money afterwards, upon producing the required certificate.

(15) The payment of duties on merchandise landed and housed in warehouses is to be made within three months. On the expiration of this time, the merchandise is to be sold at auction, or at the desire of the owner may be reshipped abroad. After an auction sale, the duty is retained from the amount realized and the remainder delivered to the owner.

(16) The custom-house official supplies the consignee with a formal certificate, stating the name of the consignee, the quality and quantity of goods, and the amount of duty to be paid into the subtreasury.

(17) On payment of the duty, the consignee will receive from the subtreasury a formal receipt. This receipt the consignee must deliver to the custom-house, and the latter issues to him a counter receipt. This latter document gives him the right to remove the merchandise and serves as proof of the legality of such a removal. The receipt of the treasury is to be attached in the official record book of the custom-house.

Note.—Tea destined for local consumption (Trans-Baikal, Maritime, and Amur provinces) is released on payment of duty, and the packages are marked with leaden seals, inscribed "Custom-house, Vladivostock (Nikolaefsk); tea; duty paid."

(18) Merchandise destined for local consumption (Trans-Baikal, Maritime, and Amur provinces) is released by the custom-house only upon payment of the proper duties. Tea destined for transportation to the custom-house in Irkutsk or beyond may be released without payment of the duty, which amounts to 22.50 kopecks per pood (11.55 cents per 36.112 pounds) gross weight. But the gross weight of the packages must be verified according to the weight in the bills of lading or invoices by weighing at random several packages. Should these documents contain no statement of weight, or if the actual weight disagrees with the documents, the whole shipment must be reweighed.

(19) After the estimate of the duty, the tea intended for Irkutsk is released, with the obligation of reaching the Irkutsk custom-house within eight months. Security must be deposited for the full amount of the duty. This may be deposited either with the subtreasury of Vladivostock or Nikolaefsk or Irkutsk; in the latter case, the tea is released as soon as the custom-house at Vladivostock or Nikolaefsk receives information from the custom-house in Irkutsk (by telegraph) that security has been obtained to the full amount of the duty.

(20) Tea so released must be sealed by the custom-house of Vladivostock and Nikolaefsk with the inscription "Custom-house at Vladivostock (Nikolaefsk); tea; duty not paid."

(21) Concerning tea to be carried to the Irkutsk custom-house, the certificate must be made in duplicate. It must contain: (*a*) Name of the consignor, place of destination, name of the consignee; (*b*) number of packages and their marks; (*c*)

quality of the tea; (*d*) gross weight of each package; (*e*) total gross weight of each sort of tea separately. One copy is to be sent by mail to the custom-house in Irkutsk; the other is to accompany the transportation of tea to Irkutsk and be presented for inspection to officials on the road authorized to verify the shipment of tea in any place where it is landed, shipped, or housed in railroad cars.

(22) The whole quantity of tea marked in the certificate accompanying the shipment from Vladivostock and Nikolaefsk should reach Irkutsk within eight months.

(23) From time to time as the packages of tea arrive at the custom-house in Irkutsk, the latter, after verifying them by the certificate of shipment and after ascertaining the good condition of the leaden seals, sends information thereof to the custom-house at Vladivostock and Nikolaefsk. On receipt of such information, the custom-houses of Vladivostock and Nikolaefsk order the release of the security given for the duty.

(24) Should the master of a vessel bring goods for himself without a bill of lading, or should he desire to sell part of his ship stores (such as are subject to duty), he must make a statement to this effect to the local custom-house. The custom-house examines the goods, levies the duty, and attaches the master's statement to the official records. Should the goods that the master desires to sell prove to be duty free, he can not dispose of them without first making a statement thereof to the custom-house. After verifying the statement, the custom-house affixes the seal and attaches it to the records.

(25) Should the master of a vessel or a consignee desire to reexport any goods, he may do so before the duty has been paid. The request to reexport should be written on the bill of lading. Thereupon the dutiable merchandise is sent on board, accompanied by a custom-house inspector, and merchandise free of duty is delivered to the master. In either case, the master signs the receipt on the bill of lading. Besides the above, the custom-house official marks in the bill of lading and in the cargo list the date when, and the name of the vessel on which, the goods were laden for reexportation. If the merchandise has been examined, all this information is to be entered in the official records. If such goods were dutiable, but have not been examined, then, after making the proper description, the bill of lading is to be attached to the master's statement, and the goods are verified at random, in accordance with the bill of lading.

(26) When shipping any articles or goods from the ports of the Maritime Province to the European ports of Russia, the local custom-house alone will issue certificates, exclusively on goods or articles of local or Russian origin.

GERMAN EXPORTS OF CANDLES AND SOAP TO CHINA.

Cheap laundry soaps hold the first place in this line of exports to China, but cheap toilet soaps also find a ready sale.

Laundry soap must be in bars, and a certain number of bars must weigh exactly 50 pounds avoirdupois. Each 50 pounds must be packed in separate cases suitable for sea transport. Each bar of soap must be stamped in Chinese letters with the name of the foreign commission house in China to which the soap is consigned.

Toilet soap should be packed in cardboard boxes, each holding two to three pieces. Each box should be decorated with a picture

which appeals to the taste of the Chinese. There is also great demand for single pieces of soap, inclosed in a round or square tin box, enameled and decorated.

The demand for candles in China is very large, owing to the fact that they are used at all religious ceremonies. Pure white and cochineal red candles are the most salable colors. It is essential that they be cheap and of fair quality.

Great care must be exercised in the selection of the colors for the packages. It may happen that a cardboard box or paper wrapping which in design and coloring would appeal to our taste would seem abominable to the Chinese, and under no condition could they be induced to buy it, even though they fully appreciated the value of the ware it inclosed.

Merchants who wish to do a profitable business with China must always take into account the tastes, superstitions, and religious ideas of the Chinese. They always detect symbols of luck, wealth, etc., in the general make-up of articles, and this will influence them in buying.

WALTER SCHUMANN,

MAINZ, *May 16, 1900.* *Consul.*

FLOUR IN JAPAN.

In reply to inquiries from an Ohio firm (which has received a copy of this report), Vice-Consul-General McLean writes from Yokohama, May 1, 1900:

The importation of wheat flour from the United States is increasing, and the greater portion of such importation comes from California, Oregon, and Washington. There are four grades imported, and the largest quantities consumed are of the two lower grades. The consumption is not confined to the large cities, the use of flour becoming common throughout the country.

The importers of flour are principally foreign concerns, although one or two native houses have imported some from time to time during the past two years. Importers confine themselves entirely to certain brands which have made a reputation in this market.

Complaints and rejections occur in this business as in others. So far as I know, importers meet their drafts. The business is usually done under banker's letter of credit.

The flour generally arrives in a very good condition; if a small amount of damage occurs, it is as a rule paid by the ship's agents. If the vessel has had unusually rough and bad weather, a protest is made and the claim is paid by the insurance companies issuing the policies on the goods.

There are three or four American-built flour mills now in operation in Japan, the largest having a capacity of 150 barrels a day.

There are a great many small native mills of hand and water power throughout the country. The production of the latter is of a coarse character and does not compete to any extent with imported stocks. It is used principally by the farmers in the immediate neighborhood.

American wheat is being imported largely, one firm alone having imported 2,000 tons in the last six months. Indian wheat is entered to a certain extent.

I can not say definitely if flour made in Japan from American wheat is cheaper than that imported, but I know that a considerable quantity of it is sold.

Merchants here are of the opinion that the flour business with Japan is overdone. Many of the importers are holding very heavy stocks, and the margin of profit amounts to only a small commission. But the demand is increasing rapidly throughout the Orient, the best points of consumption at present being Russian possessions in northern China and eastern Siberia.

TOBACCO IMPORTS INTO SHANGHAI.

Tobacco was imported into Shanghai in 1898 and 1899 to the following quantities and values:

Kind.	1898.			1899.		
	Quantity.	Value.		Quantity.	Value.	
	Pounds.	*Taels.**		*Pounds.*	*Taels.†*	
Cigarettes	.....	572,986	$401,090.20	.....	685,245	$500,228.85
Tobacco	.....	30,218	21,152.60	.....	27,735	20,246.55
Leaf	438,400	61,232	42,862.40	98,933	11,124	8,120.52
Prepared	71,333	11,775	8,242.50	58,267	9,620	7,022.60
Stalk	362,400	5,560	3,892.00	270,400	3,545	2,587.85
Total	.....	681,771	477,239.70	.....	737,269	538,206.37

*1 haikwan tael in 1898=70 cents gold. †1 haikwan tael in 1899=73 cents gold.

It will be noted that the importation of leaf tobacco is much less in 1899 than in 1898. This can be partly accounted for by the undoubted fact that there is on hand yet part of the overimport of 1898, which was largely beyond the needs of the market. The importation of leaf tobacco in 1899 (98,933 pounds) is, however, also less than the amount imported in 1897 (189,600 pounds), and I can only explain the decrease in the amount of leaf tobacco imported

by pointing out that the importation of cigarettes has increased from a value (gold) of $293,152.32 in 1897 to $401,090.20 in 1898 and $500,228.85 in 1899. Evidently, the imported article is superseding the variety manufactured here from American tobacco. In other words, the cheap labor here can not compete in the manufacture of cigarettes with the skilled labor of the United States.

JOHN GOODNOW,
Consul-General.

SHANGHAI, *May 4, 1900.*

CAMPHOR MONOPOLY IN FORMOSA.

Formosa now controls the camphor product of the world. The Japanese annual production has dwindled to 300,000 pounds; the Chinese yield has never exceeded 220,000 pounds; while the Formosan supply, increasing yearly, reached 7,000,000 pounds in 1895, and the yield for the last four years has ranged over 6,000,000 pounds.

To take full advantage of this favorable situation, the government has placed the manufacture under its control and made the sale of camphor a monopoly. The government appears to have two objects in view: first, increased revenue; and, second, a more complete control over the camphor forests. That both these praiseworthy objects might have been attained by the establishment of some more liberal system than a monopoly is quite probable; but the government has given the camphor problem considerable thought and study during the last four years, and, claiming the Formosa forests as the property of the Crown, the system of exclusive control of the sale of camphor appears to the authorities the most satisfactory solution. The production of camphor being confined almost exclusively to Japan, no opposition—at least for many years—is to be feared.

As to the control of the camphor forests, the need of some more efficient system of protection for the border residents against the attacks of the savages and the necessity of some method of afforestation to prevent the total destruction of the camphor trees have long been apparent.

To control the savages, a line of armed guards, 1,500 in number, will be distributed along the border for a distance of 140 miles and will endeavor to afford protection both to camphor workers in the forest and to the occupants of the border villages. As regards afforestation, the government will lay out beds of young camphor trees in Tokoham (Taikokan), Lamshun (Nansho), and other camphor districts. Young camphor trees growing in the forest, which were

formerly cut down for fuel by the camphor workers, and shoots growing from camphor stumps will be protected and their destruction strictly forbidden.

The manufacture within certain limits is not to be interfered with; but the entire production must be sold to the government at a fixed price, the maximum rate at present for the government-standard crude being 30 yen per picul ($15 per 133 pounds). The government names the maximum amount to be produced; 40,000 piculs (5,320,000 pounds) will probably be the amount for the present year. This is with the object of keeping the production within such limits as will prevent the markets being oversupplied, thus supporting the high prices which the government desires to obtain.

To effect this reduction in amount, the direct interference of the government in closing stores will probably not be required, as the price paid the manufacturers is so low that many distilling plants will be voluntarily abandoned by their owners. The price—30 yen—is paid for camphor delivered at the Taihoku (Taipeh) office. Camphor offices have been established at other places in the island, but the prices paid at these stations are such as will, after meeting the cost of transportation and loss in weight, lay the camphor down in Taipeh at 30 yen.

A vigorous attempt is being made by the government to raise the quality of the Formosan production, which in the past has been notably dirty and oily, giving the erroneous idea abroad that it possessed some inherent defect rendering it inferior to Japanese camphor in crystallizing power. Standard samples have been issued to camphor manufacturers, with injunctions that their production must equal the sample in quality, to be considered first grade.

The procedure by which the trade between the manufacturer and the government will be conducted is as follows:

Upon the camphor being brought to any of the various offices, it will be inspected by an examiner, who will declare its grade and weight and issue to the original holder a certificate, which, on the camphor being placed in the government warehouse, can be exchanged for a check on the Taiwan Bank covering the value of the purchase, which the holder can present to the bank for payment without further indorsement. This closes the transaction.

If the purchase has been made at one of the up-country stations, the government will transport the camphor at its own expense to the head office at Taihoku, where the so-called "camphor factory" has been erected. Here, the camphor is removed from its temporary packing cases and redistilled. The product, now free of foreign matter and oil, is placed under heavy hydraulic pressure and formed into blocks weighing 10 kin (about 13.33 pounds). The

blocks are wrapped in oiled paper and packed in zinc-lined cases holding ten, and are then ready for shipment.

The government in reality acts as middleman. It buys the camphor from the manufacturer and sells it to a specially appointed agent, who supplies the consumer.

The enforcement of the monopoly dates from August 5, 1899; but, as there were large stocks of camphor stored in Formosa owned by private firms, the disposal of which was not interfered with by the government, there was sufficient camphor to supply the demand for the balance of last summer and fall. Consequently, although the government purchased camphor as offered, no sale will be made until this year (1900).

On March 24, 1900, tenders were called for from firms—Japanese and foreign—which were desirous of obtaining the sole selling agency for Formosa camphor. In asking for bids, the Formosa government named several conditions under which tenders would be accepted, the general tenor of the same being as follows:

The holder of the agency was to conduct the sale of the camphor at London, Hamburg, New York, and Hongkong, and be prepared to accept from the government from 30,000 to 50,000 piculs of camphor a year. The camphor was to be of two classes—"A," to be known as "cleaned and pressed," and "B," which is camphor in its ordinary crude form. When the amount of camphor to be turned over to the selling agents exceeded 50,000 piculs a year, the selling price for the excess would be determined by the Formosa government in concert with the selling agents. The government would prepare and pack the camphor for shipment, and the agents should not change the wrapping or package, nor place other materials among the contents. So far as in their power, the selling agents should send such quantities of camphor to various leading markets (London, Hamburg, New York, Hongkong, etc.) as were necessary to supply the demand. The term of the contract between the government and the selling agents was to be for three years. For the use of the government, and also as raw material for the purpose of manufacture in the Japanese Empire, the Formosa government might sell camphor at the same price to persons other than the selling agents. However, this extra-official sale would not affect the minimum limit of the quantity to be sold to the agents. The government required of the selling agents a substantial guaranty, this being permitted to take the form of a deposit with the local government of Formosa state bonds. Furthermore, the government reserved the right to interfere, should the selling agents impair the government's camphor-monopoly interests by acts of "inordinate selfishness or of an illegitimate nature."

Although the government has generally recommended the sale of the semirefined ("cleaned and pressed") grade, owing to the saving of loss in weight, etc., it has been announced that the crude form of the drug will be furnished to consumers specially applying for it through the regular channels.

An English firm was the fortunate recipient of the agency, its tender being the most favorable—that is, it was prepared to conduct the business on the cheapest basis. The prices which will be asked for the drug abroad have been announced as follows: For "A" grade camphor blocks in London, Hamburg, and New York, 107.843 yen per picul ($53.92 per 133 pounds), exclusive of import duties if any, and in Hongkong 102.378 yen. For crude camphor, 99.702 yen ($49.85) will be the price abroad. The government will receive from the selling agents 85 yen ($42.50) a picul for the crude and 95 yen ($47.50) for the "A" grade. It has been roughly estimated that the government expense in preparing the "A," or semirefined, camphor, providing for 35 per cent loss in weight and other expenses in connection with the monopoly, will average about 25 yen ($12.50) a picul; and though it is at present somewhat premature to state figures as to the probable resulting profit, considering that the monopoly is of so recent creation, the figures appearing in the government budget are doubtless approximate; though some slight changes have been made in the system of monopoly working since the budget was framed. In the budget, the total expenses, including cost of camphor, are given as 2,167,611 yen, or about 34 yen ($17) a picul (133 pounds). This is taking the probable production for the year at 39,000 piculs. The income to the government from the camphor industry under the old system averaged about 400,000 yen ($200,000) a year.

JAMES W. DAVIDSON,
Consul.

TAMSUI, *April 17, 1900.*

QUININE AUCTION AT BATAVIA.

Vice-Consul Rairden, of Batavia, under date of April 28, 1900, writes:

The second sale of quinine at public auction was held on the 25th instant, and the following were the prices realized:

Edition II.

Each lot consisting of 2 cases of 4 tins, containing 22.68 kilograms (50 pounds).

One to forty lots were bid for at 19.50 and 23.90 florins ($7.84 and $9.61), but were not sold.

Lots 41–52 and 54 and 57 were sold at 23.95 florins ($9.71) per kilogram (2.2046 pounds).

Lots 53 and 58–61, not bringing the limit, were not sold.

Lots 62–110 were not sold, on account of offers being below the limit.

Later, lots 1 and 2 were sold at 23.95 florins ($9.63) per kilogram, packing at buyer's option.

Lots 3–30 were not sold, on account of offers being below the limit.

The prices paid above equal the unit price of 0.09¾ florins (3.9 cents) for the bark at Amsterdam.

Edition III.

Lots 1–7 were bid on for 22 and 28 florins ($8.84 and $11.25), but were not sold.

Lot 8 was sold for 29 florins ($11.66) per kilogram, and for lots 9 and 10 no bids were had.

The general opinion is that the limit 23.95 florins ($9.63) is too high, as at the sale on February 28 the limit was 22.80 florins ($9.17), with many more buyers. At that sale, most of the prices realized exceeded the limit; but at the present, the prices bid were far below what was anticipated.

It is also stated that this sale was held too soon after the former one, and that the purchasers have not had sufficient time to test the quality of the article.

The next auction is advertised for the 27th of June, and it is to be hoped that the manufacturers will meet with better success than at the present one.

TRADE OF THE PHILIPPINES IN 1899.

Consul Halstead sends from Birmingham, June 11, 1900, the following abstract of the annual report of the British consul at Manila:

The collapse of the insurrection last November and the opening of the ports since January 1 having restored confidence, great activity in commercial quarters has ensued; but the continuation of this prosperous state of affairs is very much dependent upon circumstances, for, though the ports are safe, the interior of this island and of many of the others is quite the contrary. When the accumulated cargoes now in these ports are disposed of, it will depend on the state of the country whether any further exports are forthcoming. Law and order are being restored as rapidly as possible, but the immense size of the country renders it a difficult task. The natives, I believe, would willingly return to their agricultural pursuits, but the influence of their leaders appears sufficiently strong to keep them from surrendering.

Prices have increased to such an extent that Manila, which till recently might be classed as a cheap place to live in, must now be considered the reverse. As yet the provision markets are not seriously affected, though fruit, vegetables, game, etc., are 20 per cent dearer; but house rent, servants, carriages, horses, launches,

and labor of every description are already treble the price of last year. In consequence of the great demand, launch hire and everything connected with shipping commands its own price. Improvements are visible in every direction, and already the town has quite a different appearance from last year. The work of draining the filthy town ditches and stagnant pools, which is in contemplation, may possibly entail an epidemic, but the advantage to posterity is inestimable. The recovered land of the city walls and moat will provide building sites which American enterprise will know how to utilize; and although Manila will never become a fashionable watering place, it may become a great commercial power in these waters before the first quarter of the century is passed.

The two well-known leading industries of Manila—hemp and tobacco—will, I fear, suffer very severely for some time from the late insurrection; but there are no doubt at present golden opportunities for the employment of capital and talent in many local trades. Ice manufactories, livery stables, hotels, and general enterprise are much wanted; but I most strongly deprecate young men without capital (no matter what their education may be) coming here in search of employment. The departments of the post-office and telegraph, being now under American and British control, are admirably conducted. The telephone, the water supply, and the electric lighting are Spanish, and also deserve great praise. The electric-lighting plant is being enlarged, and Manila will soon be one of the best-lighted towns in the East.

The Chinese labor question is one of great importance in these islands. America's experience of it in California not being satisfactory, there is strong influence against it; but, taking into consideration the natural indolence of the Filipino, it will probably be found impossible to do without the Chinese. One of the principal objections is that by their industrious habits they gradually obtain a monopoly in all retail trades; but this may be remedied by confining their enterprise simply to manual labor, and for this they are most admirably adapted, and in the hot season positively necessary. The Filipinos make excellent clerks if they can be well overlooked; but if allowed, they will spend their time in gambling and cockfighting. They have no idea of putting energy into any of their pursuits, and have no commercial instincts; they also care little for money, loss or gain being to them apparently a matter of indifference.

A copy of the report to which Mr. Halstead refers having been received by the Bureau of Foreign Commerce, the following extracts are added.

The British vice-consul at Iloilo says:

The United States forces having now successfully occupied the better part of the island, the end of this year augurs well for a happier future, and, when once a peaceful rule is established, many important improvements will take place.

The Island of Negros is in a more satisfactory state, and, although the crops for 1900 may not be very large, owing to the difficulties which had to be overcome in procuring labor, the planting for the 1900–1 crop, I have reason to believe, is extensive.

The vice-consul at Cëbu reports that the China Steam Navigation Company has just commenced to run a regular steamer from Hongkong to that port via Manila and Iloilo, and no doubt other companies will follow this example, as there seems a good prospect of this enterprise giving a favorable result. Hemp was exported from Cëbu last year to the value of £647,675 ($3,151,910); sugar, £158,328 ($770,503); copra, £49,716 ($241,953). The total shipments ex-

ceeded by some £300,000 ($1,456,000) those of the year 1898. Imports (consisting largely of petroleum, rice, salt, and coal) were valued at £216,847 ($1,055,286).

The following table shows the principal articles of export from Manila, Cëbu, and Iloilo during 1898 and 1899:

Articles.	1899.		1898.	
		Pounds.		*Pounds.*
Hemp.....piculs...	1,201,476	167,545,825	1,585,212	221,057,813
Sugar .....do.....	1,488,871	208,441,940	2,843,116	398,036,241
Sapan wood.....do.....	5,700	760,000	19,606	2,614,133
Cigars.....thousands...	134,849	.....	129,840	.....
Coffee .....piculs...	660	88,000	196	26,133
Leaf tobacco.....quarters...	116,962	.....	145,055	.....
Hide cuttings.....piculs...	5,326	710,133	5,742	765,600
Copra .....do.....	291,322	38,842,933	264,976	35,330,133

Distribution of trade.

Articles.	1899.		1898.	
United States and Canada.		*Pounds.*		*Pounds.*
Hemp.....piculs...	569,896	79,472,007	712,898	99,413,626
Sugar .....do.....	353,680	49,515,200	447,952	62,713,280
Cigars.....thousands...	2,420	.....	1,850	.....
Leaf tobacco.....quarters...	.....	.....	190	.....
Hide cuttings.....piculs...	142	18,933	812	108,266
Copra .....do.....	.....	.....	400	53,333
Great Britain.				
Hemp.....piculs...	539,720	75,263,964	784,254	103,783,431
Sugar .....do.....	287,470	40,245,800	748,470	104,785,800
Cigars.....thousands...	16,843	.....	16,650	.....
Coffee .....piculs...	400	53,333	.....	.....
Leaf tobacco.....quarters...	4,497	.....	1,726	.....
Copra.....piculs...	44,704	5,960,533	10,480	1,397,333
Europe.				
Hemp.....piculs...	21,406	2,985,067	17,268	2,408,023
Sugar .....do.....	33	4,620	2,890	404,600
Sapan wood.....do.....	.....	.....	243	.....
Cigars.....thousands...	29,458	.....	24,170	.....
Coffee .....piculs...	172	22,733	37	4,933
Leaf tobacco.....quarters...	108,469	.....	135,931	.....
Copra.....piculs...	246,366	32,848,800	248,640	33,152,000
China and Japan.				
Hemp.....piculs...	34,048	4,747,994	33,306	4,644,522
Sugar .....do.....	847,685	118,675,900	1,693,804	237,132,560
Sapan wood.....do.....	6,700	.....	19,363	.....
Cigars.....thousands...	57,231	.....	56,640	.....
Coffee .....piculs...	88	11,733	145	19,333
Leaf tobacco.....quarters...	1,726	.....	4,605	.....
Hide cuttings.....piculs...	2,965	395,333	2,971	396,133
Copra .....do.....	252	33,600	256	34,133

Australia in 1899 received 29,152 piculs (4,065,256 pounds) of hemp; in 1898, 31,936 piculs (4,553,476 pounds); Singapore and India received 7,254 piculs (1,011,570 pounds) of hemp in 1899 and 5,550 piculs (773,948 pounds) in 1898.

AUSTRALIAN BUTTER PACKING.

Attention has been attracted in Germany to a new method of packing butter which has been tried with very satisfactory results in connection with shipments from Melbourne to Kimberley. This method, which, it is said, has already been extensively adopted in Australia, consists in placing the butter in a box formed of six plates of ordinary window glass whose edges are closed with gummed paper; the glass box is covered with a layer of burnt gypsum (plaster of paris) 6 to 7 millimeters (about one-fifth of an inch) thick, and is then wrapped in specially prepared waterproof packing paper. As gypsum is a bad conductor of heat, a regular temperature is maintained within the glass box. At present, the cases are made of sufficient size to contain 100 kilograms (220 pounds) of butter.

This idea may prove of special value to firms in the United States engaged in shipping butter and other articles to tropical countries, especially if the question as to the proper size and construction of the boxes be given additional consideration. It seems likely, moreover, that this system of protecting delicate articles may be found useful even in the home market.

GEO. H. MURPHY,
Vice-Consul.

MAGDEBURG, *May 23, 1900.*

ELECTRIC WORKS IN BOMBAY.

Almost every mail brings me letters from American electric manufacturers and exporters asking for information and the names of agents to handle their productions. I would be glad to furnish these were they to be had in this consulate. In all India, Madras is the only city where electricity is used as a power for street railroads. Bombay's tramways are run by horsepower, and the city is lighted by gas. Electricity is used only in a limited way; in some of the better houses and bungalows and on an occasional fête or holiday, a public park may be lighted by a portable electric plant. The general merchant and dealer is not sufficiently acquainted with electric manufactures to make a successful agent, and, besides, the demand for goods of this line is quite limited.

Bombay is an immense city, with land and sea shipping equal to the best. It has large commerce and trade and manufacturing interests. Its buildings are said to be the finest in India, and much wealth is centered here. The appalling density of its population and the exorbitant rates of rental must find relief in cheap

and rapid electric transit. Electricity as motive power and light must come soon, and I hope our manufacturers and capital seeking new fields of profitable and safe investment will look well to this opportunity.

The Bombay Tramway, an American company with head office in New York City, some time since applied to the municipality for the privilege of converting its power into electricity. This has not as yet been granted. The municipal commissioner, W. L. Harvey, has declared his intention of giving the city electric lighting, and the matter is now open for bids and offers. For the information of those interested, I inclose a letter from the municipal commissioner and a copy of preliminary contract on the subject of the electric lighting of Bombay. I might add that three or four local firms have tendered bids. These firms, I understand, are simply representatives of Europen capitalists and electric-construction companies. I might further say that India possesses an inexhaustible supply of coal, and, while it is inferior to the Welsh coal, yet it is correspondingly cheaper and considered very good for steam purposes. It sells at this port for from 13 to 16 rupees ($4.25 to $5.25) per ton, according to the quality.

The cost of transportation of electric supplies and apparatus from our shipping ports to Bombay could be greatly lessened by freighting in sailing vessels around the Cape. This would also avoid Suez Canal tolls, and, by judicious management in shipping, the extra time taken would not be felt. Under the Indian tariff code, a large proportion of an electric plant would enter duty free. However, the question of tariff would not figure in competition for the contract, as all companies are treated equally.

I wish to add that I will do all in my power to aid and further American interests, and would impress upon any company wishing to enter upon this field the absolute necessity of sending reliable agents to represent it.

WILLIAM T. FEE,
Consul.

BOMBAY, *May 15, 1900.*

EXTRACT FROM LETTER OF MUNICIPAL COMMISSIONER TO CONSUL FEE.

It is open to any firm to apply for a concession, and any applications received will be put before the corporation. A copy of the agreement which it is proposed should be adopted and executed by any firm to whom the necessary permission may be given is herewith forwarded. The agreement is, however, by no means final, but is rather drawn up to form a basis of discussion.

It should be clearly stated over what area and in what streets cables are proposed to be laid, the size of the supply station, and what terms the applicants are prepared to offer.

SUMMARY OF ARTICLES OF AGREEMENT.

The said electric-supply lines shall be laid down, conducted, and maintained under street, road, or pavement in the manner laid down in the electricity act No. XIII of 1887 and the rules of 1897, at such depths below the surface of the ground and in such position in all respects as the commissioner shall from time to time require, and not otherwise.

The commissioner shall not in any case permit any electric-supply lines to be set up and conducted either wholly or partially above ground, above, along, or across any street, road, or pavement.

All wires or cables shall be completely insulated, and all casing or other apparatus shall be of such pattern and material respectively as the commissioner may reasonably require, and the commissioner may limit the number of wires or cables which shall be laid down under any one street.

The company shall take all proper precautions in constructing, placing, maintaining, and using their electric-supply lines so as not injuriously to interfere with the working of any other wire, line, or apparatus from time to time in use for the purpose of lighting or transmitting electric power or of telegraphic, telephonic, or electric-signaling communication, or with rails or pipes.

The company may, under such superintendence as is hereinafter specified, open and break up the soil and pavement of the several streets, roads, and bridges vested in the corporation under which the commissioner may have approved of lines being laid down, and from time to time repair, alter, or remove such lines.

Before the company commences the work of laying down such lines, they shall give the commissioners notice in writing not less than ten clear days before commencing. In the case of ordinary repairs forty-eight hours' notice shall be deemed sufficient. In cases of great emergency arising from defects imperiling the safety of the public or the continuity of the supply of electricity, notice shall be given so soon as possible after the beginning of the work or the necessity for the same shall have arisen.

In case the commissioner shall at any time consider that the position of any electric-supply lines or other appliances ought to be altered, the company shall within seven days, upon the written requisition of the commissioner, at their own expense, make such alteration.

When the company breaks up the pavement of any street, etc., as aforesaid, they shall with all convenient speed complete the work and make good the road and maintain the same in efficient condition for three months after the completion of the works and carry away the rubbish occasioned by their works.

The provisions of this agreement shall remain in force for a term of twenty-one years from ———, and in consideration of the concession herein granted the company hereby undertakes to pay to the corporation half-yearly on the 15th day of March and the 15th day of September in each year (save as hereinafter provided) an amount calculated at the rate of 200 rupees per annum for each mile of ground under, along, or over which electric-supply lines shall for the time being be laid down; provided, however, that the company shall not be liable to make any payment in respect of the first year from the ———, and that, in respect of the second year from that date, the amount to be paid by the company shall be calculated at the rate of 100 rupees per annum only for each mile as aforesaid.

At the expiration of the term for which this concession is granted, or in the event of the company being desirous to dispose of their lines, with the plant and other things connected therewith, before the expiration of the said term (of which desire the company shall give notice in writing to the commissioner), the corporation shall have the option and right of purchasing the same upon declaring through the commissioner their intention so to do within three calendar months after the

expiration of the said term or after the company shall have ceased to carry on their business; the amount to be paid in the event of such purchase shall be the fair market value of the land, buildings, works, materials, and plant of the company at the time of the purchase, due regard being had to their nature, state of repair, etc., but without any addition in respect of compulsory purchase or of good will or of any past or future profits or of any similar consideration, such value in case the parties do not agree to be decided by arbitration.

The company shall not assign or transfer their right, interest, and property in the concession or their power of working the same without the previous consent in writing of the commissioner.

If at any time after the opening of any electric-supply line (other than a branch to a consumer's premises) the company shall discontinue the working of any part thereof for the space of six calendar months (such discontinuance not being occasioned by circumstances beyond the control of the company), it shall be lawful for the commissioner to call upon the company to remove, and, if such requisition be not complied with within three months after receipt thereof, to remove the line or part of the line so discontinued, and in the latter case the company shall pay to the commissioner the cost of such removal.

The company shall deposit with the commissioner the sum of 5,000 rupees in Government paper, which, subject as hereinafter mentioned, shall remain so deposited during the continuance of these presents, all interests accruing on the said sum to be credited to the company. The commissioner shall from time to time (after giving written notice to the company of his intention so to do) be entitled to deduct all fines, expenses, costs, or sums of money which may under the provisions of these presents from time to time become payable to him by the company out of the sum so deposited or the interest accruing thereon; provided always that if the said sum of 5,000 rupees shall become exhausted, the company shall within fourteen days after notice shall have been given to them by the commissioner deposit a further sum of 5,000 rupees with the corporation, which shall be held in all respects upon the same terms and conditions as the original deposit, except that on the said further sum becoming exhausted the company shall not be liable to replace the same.

If at any time during the term for which this concession is granted any system of electric lighting, being a substantial and acknowledged improvement upon the system in use by the company, is developed and introduced in England, America, or elsewhere, or if any substantial improvement in the cables, apparatus, or fittings connected therewith is in like manner developed and introduced, the company will at their own expense in all respects, upon every reasonable requisition by the commissioner in that behalf, introduce such improvement and apply the same to their electric-supply lines apparatus for fittings to be laid down, erected, or fixed under these presents.

Nothing in these presents contained shall be construed as conferring any monopoly or exclusive right in favor of the company to establish and work electric-supply lines for lighting or power under or through any of the public streets of the city.

If any doubt or dispute shall arise between the company and the corporation touching the construction of these presents, it shall be referred to the arbitration of three indifferent persons, one to be from time to time chosen by the company and another by the commissioner, and a third to be named by the two persons first chosen, and the decision of such arbitrators, if they agree, or of such umpire, if they disagree, shall be final.

This agreement is made subject to such alterations, modifications, or restrictions (if any) as may during the pendency hereof be necessitated by any law which may hereafter come into force in Bombay for the purpose of regulating the supply of electricity, or otherwise prescribing the conditions of such supply.

UNITED STATES LOCOMOTIVES IN EGYPT.

Many and impressive evidences of the efficiency of the United States system of building up and promoting home industries are afforded by the recent rapid expansion of our exports of manufactured goods in all parts of the world, and especially in Egypt. While our makers of agricultural implements and machinery are just beginning to properly appreciate the value and importance of the new field in the great valley of the Nile, it will be observed from the following extracts from the report of Lord Cromer, British agent and consul-general in Egypt, on the finances, administration, and condition of Egypt and the Sudan in 1899, that American builders of railway locomotives, whose foresight and enterprise carried them into successful competition with the English here a few years ago, are still holding the field, and it may be confidently assumed that they are here to stay.

Under the head of "railways," Lord Cromer says:

Large additions were made to the rolling stock in the course of last year. Most of the new stock added is, however, to replace old stock which had been condemned. I may mention that four trial heavy engines, exceeding in power the largest locomotives in use on the English railways, were ordered last year, viz, two from Messrs. Dubs, of Glasgow, and two from America. On the subject of various works now in progress, Captain Johnstone, the acting president of the railway administration, writes to me: "They form but a small part of what is required, and I trust that funds may soon be available for the various urgent services, more especially in connection with the port of Alexandria and the Cairo goods yard, which the administrations have from time to time brought before the government for approval."

On this point I can only repeat what I said last year. There can be no doubt that railway progress in Egypt has not kept pace with the growing prosperity of the country. What is now required is that a considerable sum—say, one and a half millions—should be borrowed, in order to enable the railways to be put into thoroughly good working order.

* * * * * * *

I am glad to say that the only locomotives recently supplied by an English firm—Messrs. Neilson Reid & Co., of Glasgow—have not given the slightest trouble. Those purchased from America in 1898 have also done well; but, as they differ in many respects from our standard types, our men have taken some time to learn their peculiarities, and we have not been able to get the best results out of them.

The action of the board in ordering locomotives and wagons from America has been criticised. It is due simply to the fact that American firms, while they are not in a position to tender on more favorable terms than others on our designs, almost invariably offer us engines or wagons built to standard designs of their own at lower prices and in less time, while English and other European makers content themselves with tendering on our designs, being, as a rule, not in the habit of manufacturing to standard designs of their own. We much prefer adhering to our own standards; but in cases where time and cost are of great importance, such an offer from America can not be passed by. On the other hand, the length

of time required at present by competent English firms to execute such orders is prohibitive, and the only order placed for locomotives this year, besides the trial orders referred to elsewhere, went to a Belgian firm, who offered delivery in three and a half months less than any English firm, and who have done good work for us in previous years.

The above observations of Lord Cromer refer to the year 1899. To-day, there are forty-six American locomotives either in use or ordered by the Egyptian railway administration; three hundred and seventy-one cars are in use and orders for four hundred more cars have been placed. The superiority of American engines and cars, as well as of all other railway equipment and supplies, is conceded by railway officials and experts, and the demands upon our shops will continue to grow with increasing rapidity.

The people of the United States may look with pardonable pride upon our success in furnishing electrical engines for London, locomotives for railways in India and Great Britain, iron bridges for the Sudan, and machinery and manufactured goods for all countries. Having supplied our own markets, we now send forth the machinery that is to aid civilization in all parts of the globe, from the burning deserts of the Sudan to the frozen fields of Siberia.

JOHN G. LONG,
Agent and Consul-General.

CAIRO, *May 12, 1900.*

EGYPTIAN COTTON INDUSTRY.

Consul-General Long transmits from Cairo, May 22, 1900, the following extracts from the report for 1899 of the British Chamber of Commerce of Egypt, just published:

The history of prices during the last year shows an unprecedentedly large development in the spinning of Egyptian cotton. In our last report we referred to the then increased margin of price between American and Egyptian cotton as likely to curtail the spinning of the latter. This was partially correct through the first half of the year, but an active demand sprang up early in the summer for new-crop cotton, and large buying was done by spinners in almost all countries, especially in England and the United States. Prices had by December 31 advanced to 12⅝ dollars and have since (early February, 1900) advanced a further 3½ dollars, the trade still being active. The result of all this is that the margin between middling American and good fair Egyptian in Liverpool has increased to 3⅜d. per pound.

This illustrates what can only be called a revolution in the trade of Egyptian cotton and is probably due, for the most part, to the newly invented process of "mercerizing"—making silken-looking goods out of cotton. The process has been tried with goods made of American cotton; but this does not lend itself so well as Egyptian cotton. Consequently, this new trade has come upon the latter, and has taken large and profitable proportions.

The crop has been a good one, and will probably show a yield of 6,500,000 cantars* (810,550,000 pounds), or 1,000,000 cantars (124,700,000 pounds) more than in

*1 Turkish cantar=124.7 pounds.

1898. The quality has been clean and generally of good staple; in some instances, superior to that of 1898. This is attributable to the less abundant supply of water at ripening time. It is a common fallacy among the Fellaheen that water should be used whenever and in whatever quantity it may be available, and there is often an overwatering, producing too much wood and leaf in the plants, to the detriment of the fruit. During the last summer and autumn, owing to the low flood of the Nile, water was less freely put on the land, and the result was beneficial. On the other hand, when the water supply was insufficient, the crops produced were of short, poor staple.

The figures of exports suffice to show how eagerly the crop has been bought up. The total export from September 1 to December 31 was 3,148,109 cantars (392,569,192 pounds), against 2,137,990 cantars (266,697,353 pounds), an excess of 1,010,119 cantars (125,961,839 pounds), which is the expected increase of crop.

This excess of export is divided thus:

	Cantars.	Pounds.
Great Britain	588,000	73,323,600
Continent	221,000	27,558,700
United States	194,000	23,191,800

The quantity of "Abassi" produced has been much less than in 1898 and has commanded high prices, the trade demand for the quality being good.

The cultivation of the quality "Yannóvich" has increased and has yielded a fine, long-stapled, handsome cotton, light in color, but not of the whiteness of "Abassi." In staple it is rather stronger than "Abassi."

The prospects for the crop of 1900 are unfortunately gloomy. The state of the Nile is lower than anything within the knowledge of the irrigation service. The river continues to fall, and the reports from the Sudan give little promise of any early supply of water to amend matters.

Egyptian cotton crops.

Year.	Quantity.	
	Cantars.	*Pounds.*
1878–79	1,683,749	209,963,500
1888–89	2,723,000	339,538,100
1895–96	5,275,383	657,920,260
1897–98	6,543,128	815,928,061
1898–99	5,589,314	696,987,455

The total exports for 1899 were 379,285 tons, against 412,620 tons in the previous year.

To the United Kingdom there were shipped 329,371 tons, against 357,160 tons, and to the Continent 49,914 tons, against 55,460 tons.

Owing to the unprecedentedly low Nile, only a moderate crop is expected next season; but it will probably not affect the exports in the early part of the season, so the total for 1900 may therefore be expected to be much larger than for 1899, seeing the larger quantity available for the first eight months of the year.

Since exports of the present crop began, the United Kingdom has taken 6,120 tons less and the Continent 11,670 tons more than in the corresponding period in 1898, and this notwithstanding the higher prices this season; thus showing that the article has found increased favor in France, the only continental country which has taken it.

The crushing industry in Egypt has been active; and the surplus oil, being of good quality, finds a ready sale abroad, as also do all the cakes. An extension of the industry is contemplated.

GERMAN COMMERCE WITH SOUTH AFRICA.

During the past ten years, the commerce of South Africa has been steadily on the increase. Official statistics show that Germany has participated largely in the gain. In 1891, Germany exported to the Transvaal products amounting in value to $295,080; in 1894, to $1,318,520; in 1896, to $3,258,220; in 1898, to $2,177,320. The exports to British South Africa and the Orange Free State amounted in 1891 to $1,283,780; in 1894, they were $2,801,260; in 1896, $3,724,700; in 1898, $3,546,200, or almost three times those of 1891. German imports from South Africa amounted in 1891 to $4,119,780; in 1898, to $4,858,060, consisting chiefly of Cape wool. German manufacturers are preparing to make the most of the renewed commercial activity which is expected to follow the war.

Our manufacturers should keep a wide-awake eye on this part of the world. No nation is so well equipped as we are to supply South Africa with the very best weapons with which to work out her industrial and commercial destiny. All we have to do is to adapt ourselves to the requirements of the people, and a very large share of the foreign trade will fall into our hands.

JNO. F. WINTER,
Consul.

ANNABERG, *May 15, 1900.*

GERMAN SOUTHWEST AFRICA.

German Southwest Africa is probably the most important of all the German colonies. It has a territory two and one-half times larger than Prussia and possesses a climate similar to that of the Transvaal and Cape Colony. The development of this colony depends somewhat upon circumstances. A great portion remains unexplored. If the soil contains rich mineral deposits and the veldts are adapted to grazing and agriculture, its future is assured.

The colony for many years has suffered from the rinderpest. Sickness and poverty have existed among the natives. The Swakopmund Windhoek Railway progresses slowly. During 1899, 192 white and 204 colored laborers were employed in its construction. The harbor of Swakopmund promises to be better than that of Walfisch Bay. The Government proposes to increase the value of this harbor by providing it with ample docks. An expenditure of $285,600, it is believed, will attain this end.

Imports into the colony amounted during 1899, in round numbers, to $1,400,000. This is $200,000 more than in the year preceding

The exports from the colony were $218,000, or $78,540 less than 1898. The imports consisted chiefly of canned goods, beer, wine, liquors, etc.

The port of Swakopmund, together with Walfisch Bay, forms the finest harbor on the west coast of Africa. It is probably destined to outstrip Cape Town in time; for, with a railroad through to Pretoria and steamship lines to Europe and America, Cape Town will lose an immense amount of traffic destined for the interior of Africa.

ERNEST L. HARRIS,
Consular Agent.

EIBENSTOCK, *May 7, 1900.*

IMPORTS INTO MADAGASCAR.

A recently published statement of the commerce of Madagascar shows a notable increase of importations from France. In 1896, they were 13,987,931 francs ($2,699,671); in 1897, 18,358,918 francs ($3,543,271); and in 1899, 27,916,614 francs ($5,387,907). French importations have almost entirely replaced those from other countries, aggregating 87 per cent of the total.

The following tables show the kind of merchandise imported:

Imports from France.

Articles.	1896.		1899.	
	Francs.		*Francs.*	
Cottons	1,619,309	$312,527	7,994,086	$1,542,859
Common wines	391,309	75,533	2,167,689	418,364
Different alcohols	748,427	144,446	1,823,713	351,977
Rice	13,068	2,522	760,196	146,718
Wheat flour	101,498	19,589	1,168,957	235,609
Preserved meats	105,377	20,338	170,658	32,937
Champagnes	145,857	28,150	247,377	47,744
Toys, knickknacks	102,499	19,782	353,807	68,284
Manufactured tobacco	98,445	18,998	202,791	39,139
Petroleum	12,159	2,347	6,428	1,241

Imports from other countries.

Articles.	1896.		1899.	
	Francs.		*Francs.*	
Cottons	4,997,131	$964,446	846,775	$163,428
Common wines	40,671	7,850	3,963	765
Different alcohols	228,111	44,025	44,500	8,589
Rice	373,874	72,158	53,425	10,311
Wheat flour	146,109	28,199	78,153	15,084
Preserved meats	60,824	11,739	26,402	5,096
Toys, knickknacks	40,594	7,835	10,068	1,943
Manufactured tobacco	42,647	8,231	595	115
Petroleum	10,865	2,097	163,585	31,572

It will be observed that the great volume of importations into the island of Madagascar in 1896 was from other countries than France, but that, in 1899, the sales were almost exclusively from France to her protectorate.

There was also a notable increase in the exportations from the island to France, from 736,772 francs ($142,197) in 1896 to 4,976,-961 francs ($960,553) in 1899.

The revolution that has thus been wrought in the commerce of Madagascar is due to the fact that the island is entirely under French rule. It is in every respect governed in the interest of France. It is to-day an accepted opinion among economists that there are but two ways for nations to increase their foreign commerce: one by treaties of reciprocity, the other by developing trade in colonies and shutting out all outside nations from its enjoyment.

JOHN C. COVERT,

LYONS, *May 30, 1900.* *Consul.*

TEA AND COFFEE PRODUCTION IN ANAM AND MADAGASCAR.

Recent reports by the French bureau of foreign commerce contain interesting statistics as to the tea and coffee industry of the protectorates of Anam and Madagascar.

The year 1894 was the first in which tea from one of her colonies was offered in France. In that year, 7,500 pounds were received from Anam. In 1896, the receipts jumped up to 10,296 pounds; in 1897, to 13,000 pounds. In 1898, the imports of tea from Anam into France were 42,262 pounds. The figures for 1899 are not accessible, but it is estimated that the exports will be not less than 140,000 pounds.

Up to 1892, Anam tea was cultivated only for use among the natives, and the proposition to cultivate it for European consumption seemed a chimera. But the consumption of tea in France was increasing very rapidly. From 1,447,635 pounds consumed in 1892, the quantity rose to 1,794,832 pounds in 1898, and it is believed to have increased by nearly another 100,000 pounds in 1899. The supply was almost entirely from China and Ceylon.

This tea from Anam is said to equal the finest article produced in China. It is in very general use in the French army in Anam, and it is believed to be only a question of time when it will fill the entire demand in France. The production is daily increasing. The old colonists are going into the business of raising tea, finding it more profitable than any other occupation.

The production of coffee on the eastern coast of Madagascar is expected to soon develop into important proportions. In the past, it has been insignificant, but the Government has published figures setting forth the estimated crop for 1904 at 713,475 kilograms (equal to 1,573,000 pounds). This estimated result is considered very satisfactory, inasmuch as the area planted is not half the cultivable territory of the island. The receipts of coffee from all the French colonies in 1899 were only 963,600 kilograms (2,123,000 pounds).

In this connection, it will be well to bear in mind the fact that France imposes a heavy export duty on everything transported from, and an import duty upon everything carried into, her colonies, unless it is conveyed under a French flag.

JOHN C. COVERT,
Consul.

LYONS, *May 11, 1900.*

TARIFF IN THE CANARY ISLANDS.

A syndicate of residents has received a concession from the Spanish Government for levying port taxes in the Canary Islands. The company pays the Government 2,000,000 pesetas per year, the contract being for ten years. The managers have deposited the quarterly payment of 500,000 pesetas, and will undertake the collection on June 1, 1900. I append statement of the maximum rate which they are allowed to charge; they have a right to lower it, but have decided to demand the rates stated, beginning June 1, 1900.

SOLOMON BERLINER,
Consul.

TENERIFFE, *May 30, 1900.*

Tariff for the Canary Islands.

Articles.	Unit.	Tariff rates.	
		Pesetas.†	
Alcohol and pure spirits	100 liters*	160	$30.88
Liquors, cognac, gin, etc	do	260	50.18
From Portugal and Holland	do	160	30.88
Sugar, glucose, and products of cane or beet	100 kilograms	85	16.41
Fish, salted	do	24	4.63
Cocoa:			
In grain	do	120	23.16
From Fernando Po	do	90	17.37
In paste or other form	do	200	38.60
From Fernando Po	do	105	20.27
Coffee:			
In grain	do	140	27.02
From Fernando Po	do	105	20.27
Otherwise ground, etc	do	250	48.25
Chocolate	1 kilogram	3	.58

*105 quarts. †Taking the peseta at its nominal value, 19.3 cents.

Tariff for the Canary Islands—Continued.

Articles.	Unit.	Tariff rates.	
		Pesetas.	
Sirup, molasses, etc.:			
Containing more than 50 per cent sugar	100 kilograms	80	$15.44
Containing less than 40 per cent sugar	do	40	7.72
Pepper, cloves, spices, or their adulterations	do	200	38.60
Tea	do	150	28.95
Tobacco in leaf:			
Habana	do	108	20.85
Philippine	do	82	15.83
Virginia and other	do	54	10.42
Tobacco (manufactured) and cigars:			
Habana	do	217	41.88
Philippine	do	163	31.46
Mixtos	do	136	26.25
Virginia	do	108	20.85
Rape	do	108	20.85
Verdin	do	82	15.83

Embarking or disembarking duties on passengers.

Description.	Class.					
	First.		Second.		Third.	
	Pesetas.		*Pesetas.*		*Pesetas.*	
For less than 200 miles, Spain	1.00	$0.193	0.50	$0.10	0.25	$0.048
For more than 200 miles, Spain	1.50	.289	1.00	.193	.50	.096
Africa and coast	3.00	.579	1.50	.289	.75	.144
Europe	4.00	.772	2.00	.386	1.00	.193
South and North America and other countries	25.00	4.83	15.00	2.90	5.00	.965

CUSTOMS REGULATIONS IN CANADA.

Commercial Agent Johnson, of Stanbridge, under date of June 9, 1900, reports that the Canadian Government has adopted similar regulations to those of the United States, requiring triplicate invoices, one to be filed at the port of entry, one with the shipper, and the remaining one to be forwarded to the Department of Customs at Ottawa.

On June 15, Mr. Johnson adds that the Department is putting into force the following new regulations, which are of particular interest to importers:

The invoice produced for entry at the custom-house, in respect of goods purchased by an importer, shall be an invoice from the person, firm, or corporation selling the goods to such importer. The invoice shall be properly certified and shall faithfully represent the transaction between the seller of the goods and the importer in respect of such goods, and shall truly exhibit the actual price paid and to be paid for the goods by the importer making entry thereof, including the cost of coverings of any kind and all charges and expenses incident to placing the goods

in condition, packed ready for shipment direct to Canada. Goods bona fide exported to Canada from any country, but passing in transit through another country, shall be valued for duty as if they were imported directly from such first-mentioned country, subject to the following conditions, namely:

(*a*) The bill of lading for the transportation of the goods to Canada shall show the ultimate destination of the goods from the place of original shipment to be a port in Canada, without any contingency of diversion, and the goods shall not be entered for consumption or for warehouse, or remain unclaimed, or remain for any purpose other than their transshipment or transit in any intermediate country.

(*b*) The said bill of lading for the transportation of the goods from the port of original shipment to Canada, or a certified copy or copies thereof, and such further evidence as the collector may require to establish the direct exportation of the goods from the place of original shipment to a port in Canada, as hereinbefore provided, together with a proper invoice of the goods, shall be produced by the importer to the collector of customs at the port of entry; provided that a customs certificate showing the transshipment of the goods in a British or foreign port, without entry thereat, for consumption or for warehouse, or for any other purpose than their transportation in transitu to the port of destination in Canada, may be required by the said collector as further evidence, in any case where he deems it necessary, in addition to the bill of lading; provided also that any original bill of lading when so produced to the collector and marked with the customs stamp may be returned if a "transitu statement" (in a form approved by the Minister of Customs) containing the material facts set forth in the bill of lading respecting the consignment, including package marks and freight charges, be filed with the collector and be by him compared with the particulars in the original bill of lading.

(*c*) Goods subject to an ad valorem duty not imported in conformity with these regulations shall be valued and appraised at their fair market value, as sold for home consumption in the principal markets of the last country whence the goods were transported into Canada, at the time when the same were exported from such country.

MINING IN BRITISH COLUMBIA.

I submit herewith official data of the product of the mines of British Columbia during 1899, and other important figures relative to the mining industry, culled from the annual report of the minister of mines, just made public.

The total mineral output of the Province for the year 1899 amounts to $12,393,131, as against $10,906,861 for 1898, an increase of $1,486,270, or 13⅔ per cent.

This would have been largely increased but for the shutting down of several mines, owing to the passage of a law prohibiting miners working over eight hours under drastic penalties, which completely demoralized the industry for some months, causing a deficit of $910,844 in silver and lead values alone. It is believed that but for the shutting down caused by the legislation referred to (the penalties of which have recently been temporarily suspended), the same mines would have brought an increase of $500,000, instead of the

present deficit, making the year's increase $2,863,159, or about 27 per cent, over last year.

The coal mines of the Province during 1899 turned out 1,306,324 tons of coal and 34,251 tons of coke, an increase over 1898 of 170,459 tons of coal and a decrease of 750 tons of coke. The total value of coal produced in the Province during 1899 was $3,918,972.

The gold production for 1899—including both placer and lode gold—amounts to $4,202,473. The yield of placer gold was $1,344,900, over double that of 1898, when the yield was $643,346. The large increase was due to the discoveries in the Atlin Lake district, which, notwithstanding the disadvantage of the disputes regarding ownership caused by the enactment of the alien law, yielded $800,000 in gold. The output of gold obtained from lode mining in 1899 was $2,857,573, an increase over 1898 of $656,356.

The amount of copper produced in the Province during 1899 was 7,722,591 pounds, an increase over 1898 of only 6 per cent. As yet, the copper-mining districts are practically limited to three—Rossland, Nelson, and the west coast of Vancouver Island. Rossland produces 75 per cent of the total output of copper in the Province.

There has been a material decrease in the amount of silver produced in British Columbia, owing to the fact that the largest producing mines have been shut down since June or July, on account of labor troubles, as stated above. The total silver production for the year amounted to 2,939,413 ounces, valued at $1,663,708, a decrease from the production in 1898 of 1,357,619 ounces fine silver and of value $712,133.

The total lead production for 1899 amounted to 21,862,436 pounds, valued at $878,870, as against 31,693,559 pounds, valued at $1,077,581, for 1898, a decrease of 9,831,123 pounds of lead and of $198,711 in value.

Some 2,000 tons of iron ore was mined in the Province last year—near Kamloops and on Texada Island—which was used for fluxing purposes by the smelters.

The following table shows the total production of all the mines of British Columbia up to and including 1899:

Products.	Value.	Products.	Value.
Gold:		Coal and coke	$44,396,387
Placer	$61,305,719	Building stone, bricks, etc	1,700,000
Lode	9,359,479	Other metals	32,900
Silver	11,340,609	Total	135,810,457
Lead	4,928,069		
Copper	2,747,294		

Production for each year from 1890 to 1899, inclusive.

Year.	Value.	Year.	Value.
1890	$2,608,803	1895	$5,643,042
1891	9,521,102	1896	7,507,956
1892	2,978,530	1897	10,455,268
1893	3,588,413	1898	10,906,861
1894	4,225,717	1899	12,393,131

Yield of placer gold, last ten years.

Year.	Value.	Year.	Value.
1890	$490,435	1895	$481,683
1891	429,811	1896	544,026
1892	399,526	1897	513,520
1893	356,131	1898	643,346
1894	405,516	1899	1,344,900

Production of lode mines.

Year.	Gold.	Silver.	Lead.	Copper.	Total.
1887	.....	$17,331	$9,216	.....	$26,547
1888	.....	75,000	29,813	.....	104,813
1889	.....	47,873	6,498	.....	54,371
1890	.....	73,948	.....	.....	73,948
1891	.....	4,000	.....	.....	4,000
1892	.....	66,935	33,064	.....	99,999
1893	$23,404	195,000	78,996	.....	297,400
1894	125,014	470,219	169,875	$16,234	781,342
1895	785,271	977,229	532,255	47,642	2,342,397
1896	1,244,180	2,100,689	721,384	190,926	4,257,179
1897	2,122,820	3,272,836	1,390,517	266,258	7,052,431
1898	2,201,217	2,375,841	1,077,581	874,781	6,529,420
1899	2,857,573	1,663,708	878,870	1,351,453	6,751,604
Total	9,359,479	11,340,609	4,928,069	2,747,294	28,375,451

Production of coal, last ten years.

Year.	Quantity.	Value.
	*Tons.**	
1890	678,140	$2,034,420
1891	1,029,097	3,087,291
1892	826,335	2,479,005
1893	978,294	2,934,882
1894	1,012,953	3,038,859
1895	939,654	2,818,962
1896	896,222	2,688,666
1897	882,854	2,648,562
1898	1,135,865	3,407,595
1899	1,306,324	3,918,972

* 2,240 pounds.

The total production of coal in the Province since settlement in 1836 is 14,523,876 tons; total value, $43,953,152.

Production of coke.

Year.	Quantity.	Value.
	*Tons.**	
1895–96	1,565	$7,825
1897	17,831	89,155
1898 (estimated)	35,000	175,000
1899	34,251	171,255
Total	88,647	443,235

*2,240 pounds.

ABRAHAM E. SMITH,
Consul.

VICTORIA, *June 12, 1900.*

NOTES FROM DAWSON: THE KOYUKUK REGION.

The census of the Yukon Territory, taken last April, shows an increase in the population of Dawson City of nearly one thousand since September, 1899. The population of the whole Yukon district, however, has decreased some two thousand.

We have an ample supply of good water now, pumped from artesian wells and piped to stores and houses at a cost to the buyer of from $4 to $5 per month; large restaurants and saloons are charged $10 to $15, and hotels $25.

The town is beginning to look busy, as is usual at this season of the year, many of the mines having begun sluicing, which makes money more plentiful. There is not the disposition prevalent in former years to squander hard-earned money, but the temptations remain the same. There are no places for the miners to go for innocent recreation, so they naturally flock to the gambling halls, which are made inviting enough. Gambling is not looked upon in this community as a crime, but as a pastime, and it is no uncommon sight to see employer and employee at the same table; lawyers and their clients, bankers and bank clerks all patronize the tables, and it was only lately that the head of a large trading company lost $21,000 in a single night.

GOLD PRODUCTION.

A conservative estimate as to the output of gold for this season, as published in a Dawson newspaper, places the figure at $18,000,000, distributed as follows:

Produced in—	Output.	Produced in—	Output.
Eldorado	$3,746,200	Gay Gulch	$106,800
French Gulch	48,000	French Hill	24,900
Oro Grande Gulch	21,000	Eldorado Hillsides	32,700
Bonanza:		Bonanza Hill	52,600
Above Dis	1,231,900	Gold Hill	1,002,000
Below Dis	1,984,590	Adams Creek	92,800
Cheechaco Hill	712,300	Magnet Gulch	477,000
Adams Hill	195,400	Monte Cristo	173,500
American Gulch	225,000	Dominion:	
Fox Gulch and Oro Fino	702,000	Above	158,000
King Solomon's Hill	749,100	Below	1,220,950
Dominion:		Hillsides	192,250
Above lower	277,500	Tribs	22,850
Below lower	480,460	Sulphur, below	594,500
Sulphur, above	862,220	Hunker:	
Gold Run	1,037,050	Above	423,100
Hunker Benches	180,000	Below	788,000
Gold Bottom	39,200	Quartz Creek	200,000
All other creeks	500,000		

These mines employed 5,280 men, at an average wage of $1 per hour.

KOYUKUK.

As soon as the ice went out and it was safe to proceed down the Yukon, all styles of boats and scows started off, some for Nome and others for the newly discovered gold fields up the Koyukuk River, Alaska. For the latter place, there have left Dawson up to the present writing at least two hundred prospectors, with some one hundred and fifty horses and mules, to take the overland trail from a point a few miles below Fort Yukon to the head waters of the Koyukuk, where the new fields are. One small steamer, with forty-five passengers, has left for the mouth of the river, from which she is to ascend about 600 miles to reach the diggings, these being situated about 100 miles above Peavey, on Slate and Myrtle creeks. The overland trail follows the Chandelar River from below Fort Yukon to Slate Creek, Jim Creek, and Myrtle, a distance of about 150 to 175 miles. There will be more steamers leaving Dawson next month for the Koyukuk. It takes at least two mining seasons, not only in the Klondike, but in the gold belt running through Alaska, to prospect and ascertain where the "pay" is. Some who went into the Koyukuk country in 1898 remained over last winter and located the pay streak, which accounts for the present influx into that region.

J. C. McCook,
Consul.

Dawson City, *May 24, 1900.*

MINING CONCESSIONS IN GUATEMALA.

Consul-General McNally transmits from Guatemala, May 10, 1900, translation of a recent decree, as follows:

All mining enterprises established or to be established within two years shall have from this date and for the next fifteen years the following concessions:

(1) All the machinery and utensils which are not manufactured in the country and are necessary for the discovery or operation of mines shall be exempt from fiscal and municipal duties. The invoices will be examined by the Secretary of Fomento.

(2) Mining properties will only be subject to the taxes or duties called "territorial contribution," which is 6 per 1,000. The exportation of all mineral products is free from any duty, fiscal or municipal.

(3) The freight rates of national railroads shall not be augmented for mining enterprises; they will remain as established, as long as this depends upon the Government.

(4) All employees and laborers in the active service of mines shall be exempt from any public employment, and also from military service in time of peace.

(5) Mining enterprises are authorized to improve the actual roads and to construct new ones, according to the law of expropriation and the law of railroads.

(6) Local and departmental authorities will lend all possible assistance to mining enterprises and give the necessary protection to those already in operation.

(7) In case there should be immigration for mining enterprises, all immigrants shall enjoy exemption from taxes and imposts stipulated in the immigration law in the second and third paragraphs of the eleventh article.

(8) All the above concessions shall last for fifteen years, even if the fiscal and mining laws of the Republic should be reformed.

COMMERCE OF NICARAGUA.

I submit the following report respecting the exports and imports of this consular district for the twelve months ended June 30, 1899, the data for which was obtained from the records of the Gobernacion, the manifest books of the steamship company, and the consular invoice book:

Exports from Bluefields (almost entirely to the United States) from June 30, 1898, to June 30, 1899.

Articles.	Value.	Articles.	Value.
Bananas	$384,387	Silver soles	$8,721
Cocoanuts	14,443	Turtle:	
Gold	229,271	Meat	496
Hides	387	Shells	3,748
Rubber	387,989	Skins	238
Ginger	320	Miscellaneous	112
Pineapples	460	Total	1,130,899
Sarsaparilla	247		

Exports from San Juan del Norte (Greytown) from June 30, 1898, to June 30, 1899.

Articles.	Quantity.		Value.		
	United States.	Europe.	United States.	Europe.	Total.
Rubber ....pounds...	221,225	9,178	$132,735	$5,506	$138,241
Hides....do.....	389,910	84,618	38,990	8,461	47,451
Skins....do.....	56,690	5,128	14,172	1,282	15,460
Coffee....do.....	173,363	1,797,794	13,869	143,823	157,692
Indigo....do.....	680	12,594	298	5,163	5,461
Sugar....do.....	11,336	(*)	340	(*)	610
Cocoa....do.....	94	61,989	13	9,298	9,311
Specie					
Silver ....soles...	199,695	54,750	79,838	23,950	177,724
Gold ....ounces...	2,915	3,088	36,312	37,624	
Tortoise shell....pounds...	.....	1,812	.....	7,248	7,248
Total	.....	.....	.....	.....	559,198

*To Costa Rica, 9,000 pounds, valued at $270.

Imports into San Juan del Norte (Greytown).

Articles.	United States.	England.	Germany.	France.	Italy.	Jamaica.	Colombia.
Lumber	$7,534	.....	.....	.....	.....	.....	.....
Dry goods	33,672	$12,555	$8,894	$1,080	$1,098	$556	$80
Provisions	16,644	.....	.....	.....	.....	.....	40
Canned goods	12,826	2,555	413	.....	1,470	.....	.....
Crockery and glassware	921	.....	684	.....	.....	.....	.....
Coal	2,134	.....	.....	.....	.....	.....	.....
Alcohol	2,988	.....	957	.....	.....	.....	.....
Flour	7,554	.....	.....	.....	.....	.....	45
Beer	2,475	.....	660	.....	.....	.....	.....
Mineral water	73	1,275	152	.....	.....	.....	.....
Hardware	25,834	8,305	282	.....	26	.....	.....
Whisky	3,713	375	316	.....	.....	.....	.....
Candles	18	605	.....	.....	540	.....	.....
Kerosene	9,973	.....	.....	.....	.....	.....	.....
Soap	1,979	4,860	423	.....	869	.....	.....
Sugar	163	.....	240	.....	.....	545	22
Tobacco	4,749	190	.....	.....	.....	83	.....
Rice	2,343	.....	2,343	.....	.....	.....	7
Wire	304	.....	.....	.....	.....	.....	.....
Coin (nickels)	13,750	.....	.....	.....	.....	.....	.....
Drugs	2,153	235	635	286	.....	.....	.....
Wine	815	635	.....	812	2,915	140	.....
Liqueurs, assorted	.....	120	.....	.....	.....	.....	.....
Gin	.....	530	.....	.....	.....	.....	.....
Liquors	.....	.....	4,165	.....	.....	.....	.....
Brandy	.....	.....	.....	650	.....	.....	.....
Cigars and cigarettes	.....	.....	.....	.....	.....	3,157	.....
Rum	.....	.....	.....	.....	.....	2,785	.....
Dynamite	.....	.....	.....	.....	.....	1,260	.....
Powder	.....	.....	.....	.....	.....	1,040	.....
Fuse	.....	.....	.....	.....	.....	60	.....
Detonators	.....	.....	.....	.....	.....	10	.....
Cocoa	.....	.....	.....	.....	.....	.....	230
Aguardiente, rum	.....	.....	.....	.....	.....	.....	285
Total	152,655	32,240	20,167	2,828	6,918	9,636	709

The estimated total for Bluefields is $432,000; grand total of imports into San Juan del Norte (Greytown), $674,557.

The total of the exports from this district for the period stated as shown is $1,690,097, of which the United States received $1,411,154, or about 83 per cent; and the total of the imports is $674,557, of which the United States furnished $504,655, or about 78 per cent.

An analysis of these statistics shows that of the principal articles of export, the United States received only about 10 per cent of the coffee, about 98 per cent of the rubber, 85 per cent of the hides, 95 per cent of the skins, 65 per cent of the specie (coined silver), 85 per cent of the mined gold, and all of the bananas and fruits. Of the imports, the United States furnished 80 per cent at Bluefields and 70 per cent at San Juan del Norte (Greytown). The principal articles of imports at Bluefields were flour, lard, beans, rice, pork, beef, salt, sugar, canned meats, fruits, vegetables, dry goods, clothing, boots and shoes, drugs, and mining machinery; the principal articles imported at this port are shown in the foregoing tables.

These statistics do not include in the articles of export the mahogany cut in and exported from this district by the George D. Emery Mahogany Company, of Chelsea, Mass., of which there is an annual export of not less than 15,000 logs, or about 5,250,000 feet, Scribner measure; nor does it embrace the exports or imports of Cabo Gracias á Dios (Cape Gracias), though combined they probably do not exceed $100,000 per annum and are almost entirely with the United States. The importation of munitions of war, amounting probably to not less than $50,000 for the last two years, and some $30,000 worth of railway material and stock (nearly, if not quite, all of which was purchased in the United States) are also omitted from this estimate of the imports and exports.

All estimates of value are upon a gold basis.

Data respecting the imports and exports for the whole country for the period covered by this report will not be available before December next, and, when obtained, will be submitted in a supplemental report.

FREIGHTS.

The transportation charges from and to this district are as follows:

From San Juan del Norte to New York, per 100 pounds.—Rubber, hides, and skins, $1 and 5 per cent; coffee, 30 cents and 5 per cent; specie, 1 per cent.

From Granada via San Juan del Norte to New York, per 100 pounds.—Coffee, clean, $1; coffee, husk, $1.25; hides, $1.70; deerskins, $2.10; rubber, $1.90; indigo, $2.10; specie, 1¾ per cent.

From Granada via San Juan del Norte and New York to the Continent, per long ton.—Coffee, clean, £4 10s. ($21.89); coffee, husk,

£5 15s. ($27.95); deerskins, rubber, hides, and indigo, £9 ($43.79); specie, 1¾ per cent.

From San Juan del Norte to the Continent via New York, per long ton.—Rubber, hides, and skins, £4 ($19.46) and 5 per cent.

No coffee is ever shipped from San Juan del Norte to Europe; therefore, no freight rate is given.

From Europe to San Juan del Norte via New York the transportation charges are, per ton (ton measurement is 40 cubic feet): Dry goods and general cargo, 30s. to 45s. ($7.29 to $10.93) and 10 per cent (machinery and other heavy cargo usually falling under the head of the lowest, or minimum, rate); and from New York to San Juan del Norte, 17 cents and 10 per cent per foot measurement, or 42½ cents and 10 per cent per 100 pounds.

As shown by the foregoing tariff of charges, the freight rates from this port and, it is fair to assume, from every port of the Republic to New York and from this port to London or Europe via New York are practically identical; that is to say, the transportation charges on a given article and quantity are no greater when shipped to Europe via New York than if it were shipped directly and only to New York, and this rule of discrimination applies to shipments from Europe via New York and from New York primarily to this country.

TRADE CONDITIONS.

General trade conditions of Greytown and Nicaragua do not seem to differ in any material sense from those of Central and South America generally. Only a small percentage of the best grade of merchandise can be successfully introduced, as a great majority of the people are content that an article is cheap, and they seem to be unable to distinguish between the imitation German manufactures and the more stable products of the United States. There is, however, a fair proportion of the population not only capable of discrimination, but who are accustomed to and insist upon having the finest and best qualities.

In the staple lines—groceries, dry goods, and hardware—it depends largely upon the opportunity given the local merchant to buy as to what countries are represented; but when a preference is expressed by the consumer, it is usually for the American article. The local merchant (a foreigner generally), all things being equal, naturally prefers to handle the manufacture of his native country, and, as a rule, greater inducements, in the form of better terms, better packing for shipment, and more consideration for local customs and conditions, are offered by the European manufacturer and exporter. But consular officers have so long, persistently, and fruitlessly presented the matter of unskilled and ignorant packing,

the want of consideration in selection, and of even ordinarily intelligent methods in presenting the claims of American goods to this market that it is hardly worth while to further refer to those phases of the matter; though I wish to emphasize the vital importance of realizing that in packing for foreign shipment—and especially for these countries, where the facilities for handling cargo, even by the ocean steamers, are, as a rule, crude and rough—methods distinct from those in vogue for shipments destined for the next railway station at home are required. Compactness and lightness, to avoid excessive transportation and customs charges, and strength, for protection against rough handling, are three good points to be studied and learned in packing for shipment to Central and South America; and it is probably equally important for United States manufacturers and exporters to realize that a proper knowledge of local customs and requirements can not be had merely by sending out dreams-of-art catalogues. This knowledge can best be acquired, as well as that respecting the responsibility and general business aptitude of the customer, by sending capable, affable, and reliable representatives, first to personally show and explain the class of merchandise sought to be introduced, and, second, to investigate the responsibility and integrity of prospective customers; after which catalogues and price lists may be not only useful, but essential.

Referring to the responsibility of a customer, if I were giving advice, I would suggest that credit be not extended to a native doing business in his own country, because, however wealthy and honest he may be, he is subject to the vicissitudes of unstable political conditions which unhappily prevail, and for some real or fancied political offense is liable to be proscribed or imprisoned and his property confiscated.

Probably one of the most serious drawbacks to general trade with this country is the lack of banking facilities and a "parcel-post service." There is but one banking institution doing business in the entire Republic—an English corporation with branches established at Managua, Nicaragua, and San Salvador, with a total capitalization of only £400,000 ($1,946,600). The mail facilities between the United States and Nicaragua, while not ideal, are quicker, safer, more direct, and constant than between any European country and Nicaragua; yet England, Germany, and France have "parcel-post" treaties with Nicaragua, while the United States has none. With a comprehensive "parcel-post service" between the two countries, trade facilities would, of course, be very materially augmented; and, were it feasible also to establish a "postal-money-order" system as an auxiliary agency, hundreds of thousands of dollars, representing small orders, would be added to the trade of the United

States. In view of the absolute lack of banking facilities between the United States and Nicaragua, I know of no other convenience so badly needed that would so surely assist in building up a general and immensely profitable "small-order trade" with the United States and at the same time confer a substantial advantage upon the people of Nicaragua.* But I wish to emphasize the statement that, however desirable a "parcel-post" arrangement would be, in the absence of a practical "postal-money-order" system as a convenient means of transmitting small remittances, its utility would be very materially impaired. I know that my advocacy of a "postal-money-order system" in this connection amounts to the suggestion of an innovation; but in Central and South America, where there is an utter absence of adequate banking facilities in general, and especially in Nicaragua, where there is but one bank in the entire Republic (the branch of the English corporation, the operations of which are practically confined to the capital and its immediate surroundings), its utility and well-nigh absolute necessity is patent.

The general commercial conditions of the country have improved in a material measure within the past two years. Prior to that time, the production of coffee had fallen very low, and its market value had depreciated year by year, which, taken in connection with actual and anticipated military preparations and revolutionary disturbances, with their attendant demoralization of labor, created a ruinous condition. Bankruptcy (confined practically to the country on the Pacific side of the coast, where the largest cities are located) followed, and many German houses which had given large and long credits and were doing business generally on the "slow-note" basis lost heavily. But, with the falling off in the production and value of coffee, the principal production of Nicaragua, and the general commercial crash referred to, the country was forced upon a semicash basis, and, as a result, it is very probable that for the first time in many years the exports for 1899 exceeded the imports; and this, in conjunction with an advance in the market value and an unprecedented yield of coffee for the present year, has put the country generally upon a firmer commercial footing.

COFFEE CROP.

The coffee crop for this season is estimated, by both Government and planter, at fully 150,000 bags—as against 75,000 bags for the last season—the export duty on which will amount to 300,000 pesos, or sufficient to pay the interest on the foreign debt of $1,400,000 and leave a handsome surplus of $40,000 or $50,000 gold.

*NOTE BY CONSUL.—Since this report was written, a parcel-post treaty between the United States and Nicaragua has been arranged; and I desire again to urge the great practical value and importance of a "postal-money-order system" as a cooperative agency.

FINANCES.

There are several series of outstanding bonds applicable to the payment of customs dues, with the provision that a fine of from 3 to 5 per cent upon the amount of the importation shall be assessed if the importer neglects, fails, or refuses to obtain said bonds. All such fines serve to augment the actual assessment of duties. The more recent issue of bonds are those for the payment of a public-treasury indebtedness of 285,400 pesos ($123,864), due to the Bank of Nicaragua (the London Bank of Central America), and 600,000 pesos ($260,400) for the commencement of work on the proposed San Ubaldo-Rama Railway.

PROPOSED RAILWAY.

The only public work of general importance now pending is the proposed railroad from San Ubaldo, on Lake Nicaragua, to Rama, about 60 miles from Bluefields, on the Rama River. This road would be about 101 to 140 miles long, and the Government has signified its willingness to accept a voluntary loan of 600,000 pesos from the merchants of Bluefields and others with which to commence its construction.

COLONIZATION.

The Nicaraguan Government has sold to Dr. Carlos Bovallius 30,000 manzanas (about 52,000 acres) of public land for colonization purposes. These lands are at the head of Tepenaguasape River, in the Department of Chontales, and about 6 leagues from the town of San Miguelito, on the eastern shore of Lake Nicaragua. The terms of the contract are summarized below:

Dr. Bovallius obligates himself to colonize not less than 100 inhabitants of northern Europe, the first year bringing not less than ten families who have a knowledge of agriculture and stock raising, and four years being given to complete the total number of 100 colonists. In addition, there must be established, within the limits of such land, schools of agriculture and stock raising, in which the cultivation of rubber and its scientific treatment will be especially taught; the cultivation of coffee, cocoa, vanilla, and other products tending to the enrichment of the country shall also be taught. For the stock-raising branch, one Holstein and one Durham bull and four cows of each class must be imported for the purpose of improving the breed of the cattle of the country. There must also be established the Swiss or Danish system of making cheese and butter. Twenty boys of the country who can read and write are to be taught, tuition free, in these schools, and boys who render practical assistance are to be maintained for five years gratis.

The colonists are exempt from all military or public services for the period of fifteen years and from all direct taxation during services at school.

The Government admits, free of importation duties, all agricultural implements necessary for use in the schools and for the manufacture of cheese; also, the cattle referred to and the baggage and furniture for the use of the colonists.

The surveyor who measures the land shall be paid by the contractor, and the measurement shall be commenced not more than three months after the approval

of contract. Dr. Bovallius shall pay 30,000 pesos ($13,020) for the 30,000 manzanas of land, as follows: Fifteen thousand pesos when the measurement has been approved by the revising judge and the other 15,000 pesos six months thereafter; and, as a guaranty of faithful performance of every condition of the contract, 20,000 pesos ($8,680) shall be deposited, which shall be secured by the lands sold by the Government. The faithful performance of the contract shall be considered violated if the contractor does not bring 100 immigrants within the term stipulated, if the schools are not established within the specified time, if fewer than 10,000 rubber and 10,000 vanilla trees are cultivated within the first five years, and if the cattle are not imported during the first year. For each infraction, a fine of 5,000 pesos ($2,170) will be imposed and collected by the Government from the amount deposited, and, in default of compliance with all of the conditions of the contract within the period of five years, the lands shall revert to the Government and the Government will pay whatever difference there may be in the actual value of the lands and the 30,000 pesos, exclusive of the fines assessed. The contractor may sell or mortgage all or a part of the said lands, with the approval of the Government, and all differences arising between the contractor and the Government shall be submitted to arbitration; but the contractor and the colonists are subject to the laws of the country in all matters not in contravention to the terms of the concession.

It is commonly believed that a considerable quantity of valuable timber is to be found near the head waters of the Tepenaguasape River, which fact probably has not been overlooked by Dr. Bovallius.

TRANSPORTATION.

Since 1898, the Government has completed its branch railway from Masaya to Jinotega, which gives a total of about 135 miles in three sections. In connection with this, two small transfer steamers are employed on Lake Managua. The Silico Lagoon Railroad, 6⅛ miles in length and built by and for the exclusive use of the Caribbean and Pacific Transit Company, to transfer passengers and freight when the water in the San Juan River between the Co orado River and Greytown is too low for steam navigation, was completed several months since and is now in operation. The only other railroad in the country is that of the Emery Mahogany Works, in the vicinity of the Grande River. About 25 miles of rail and tramway are operated for the convenience of the mahogany camps.

There is also a "dummy" street railway in Granada, probably more than a mile in length; a tramway from San Jorge, on Lake Nicaragua, to Rivas, about 6 miles in length; and a tramway in Greytown, about 1½ miles in length. Both of the latter are operated only about often enough to keep their charters from lapsing.

The principal water transportation of the country is that of the Caribbean and Pacific Transit Company, Limited. The service from Greytown to Granada employs one large lake steamer, six or seven river steamers, two ocean steam tugs, and one small steam launch. There are also several river steamboats and quite a number of small

steam craft plying between Bluefields and Rama, engaged in general passenger and freight traffic and in towing bananas to points designated along the Rama River and to the bluff opposite Bluefields, to be loaded by the fruit steamers from New Orleans and Mobile, which ascend the river as high as the town of Rama.

MINING.

There are several mining districts in the country—Chontales, Segovia, Prinzapulca, Cuicuina, Cabo Gracias, etc.—but, while there can be no doubt of the general value of some of these sections, there seems to have been no development of a phenomenal nature in any of them. Americans should make thorough and competent examination of the value of each individual property before investing money. I do not mean to say that the districts mentioned are not abundantly rich in gold, silver, and other minerals; but I do mean to say that a distinct success of any gold mine in the country in latter times has yet to be recorded. I believe, however, that there are several districts and many properties capable of standing the most critical examination and test.

PROFESSIONS.

The total population of Nicaragua is supposed to be about 400,000, by far the greater part of which is of the laboring (peon) class; naturally, therefore, this can not be an attractive or remunerative field for doctors, surgeons, and dentists, and I venture very little in saying that the location in Nicaragua of ten surgeons and ten dentists would certainly overcrowd the field. As for engineers, I would say that these or other professional men who come to Nicaragua without first having a satisfactory contract, either with the Government, with responsible private individuals, or with a reliable company, would come on a "fool's errand" and had better have return-trip tickets. While the country, soil, and climate are attractive, the population and private and public capital are limited, and, moreover, there are now many capable and intelligent native physicians, surgeons, dentists, and engineers in the field.

WILLIAM B. SORSBY,

SAN JUAN DEL NORTE, *May 10, 1900.* *Consul*

PROJECTED RAILWAY EXTENSIONS IN MEXICO.

General Manager John P. Ramsey, of the Rio Grande, Sierra Madre, and Pacific Railroad, recently made a horseback survey of a projected line of road to run from Corrallitos to Frontera, a distance of 160 miles. Mr. Ramsey found that, so far as a bird's-eye survey can be relied upon, the line is feasible and would return a reasonable interest on the investment from the very beginning.

The Rio Grande, Sierra Madre, and Pacific Road, which runs southwest in Chihuahua for 160 miles, was completed in 1897. It was expected this road would be extended to the Gulf of California, with a terminus at or near Topolobampo, a fine natural harbor. It was found, however, after the road had been constructed as far as Casas Grandes, the present terminus, that the cost of building the line across the Sierra Madre Mountains would be so great as to render the project entirely impracticable. As a result of operating no farther than Casas Grandes, the Rio Grande, Sierra Madre, and Pacific Railway has not paid interest on the investment, and only for little more than a year has it paid working expenses. The enterprise was fathered principally by the stockholders of the Corrallitos Company, a New York corporation possessing a well-stocked cattle ranch of 1,000,000 acres and several very good lead and silver mines. The road placed the Corrallitos mines and ranch in touch with the markets, and the company expected to haul enough freight to pay interest on the railroad stock and bonds, in addition to the cattle and ores carried from the Corrallitos property. This was expected, whether or not the road was ultimately extended to the Gulf of California.

Realizing that the railroad as now operated will not pay, the company is considering an extension westward in one of two directions, possibly both.

The Copper Queen Company, of Arizona, has just completed a copper-smelting plant at Nacosari, State of Sonora, about 100 miles south of Bisbee, Ariz. Modern furnaces have been established at a cost of more than $1,000,000. It is said to be one of the finest and most elaborate copper-smelting plants in the world. It is claimed the company has $35,000,000 worth of copper ore at Nacosari blocked out, or "in sight," as they express it. A railroad line has been surveyed from Bisbee to Nacosari, and it is said the company will commence building at once. At present, coke and coal for the Nacosari smelter is hauled from Bisbee to Nacosari in specially made

freight wagons. Three of these wagons are coupled together and hold nearly two carloads of freight. They are drawn by eighteen horses or mules. Coal costs this company more than $8 per ton laid down at Bisbee. It offers to supply or guarantee six or more cars of freight per day between Frontera and Ciudad Juarez (El Paso, Tex.). The company would thus save several dollars per ton on the coal it will use. Coal laid down in El Paso is $4.50 to $5 per ton. It is twice that at Bisbee; so it will be readily seen what a saving the copper company could effect with railway connections at El Paso via the Rio Grande, Sierra Madre, and Pacific Railroad and its proposed extension, especially when it is understood that the copper smelter will use $5,000 or $6,000 worth of coal and coke every day in the year.

It was figured that if the projected extension of the Rio Grande, Sierra Madre, and Pacific Railway would not cost more than $2,500,000, it would prove a paying investment from the first. General Manager Ramsey, who is an engineer as well as a practical railroad man, came to the conclusion, after his horseback survey, that the extension would not cost more. The first 75 or 80 miles of the extension could be laid at less than $10,000 the mile. For that distance there would be few curves, practically no grading, and no cuts. It would cross a series of level cattle ranges. The line would then strike the rugged mountains of the Continental Divide. Mr. Ramsey, after several days' searching, found that two tunnels and a long bridge, with a considerable number of cuts and fills—altogether about 35 miles of rough work—would place the road again in a level country, with no difficult work for the remainder of the distance.

The line would run near some of the richest silver mines in Mexico. It would pass close by the Roy and the Cinco de Mayo mines, which now ship ore 125 miles on the backs of burros and make it pay. There are many valuable deposits of low-grade ores which this road would develop. Besides touching a good mining and cattle country, it would pass through several valleys well watered and adapted to agriculture. The Mormons, too, in their new colony at Morelos—which, on account of valuable lands and ample water supply, will soon have a population of several thousand—would contribute materially to the profits of the proposed road.

Another project the Rio Grande, Sierra Madre, and Pacific road is considering is a line about 80 miles in length, to run from Casas Grandes into the Sierra Madre Mountains and touch the pine-timber forests. Several million of acres of timber lands are found here and there is a great demand for cheap lumber.

The next two or three years promise to bring about considerable development of the resources of this consular district. Along with

railroad construction comes invariably the opening of mines and the improvement of cattle ranches. The bases of prosperity in this section of Mexico are cattle raising and mining. Railroads are necessary to afford an outlet to market for the products of either.

CHARLES W. KINDRICK,

CIUDAD JUAREZ, *June 7, 1900.* *Consul.*

CONSULAR INVOICES FOR SALVADOR.

Consul Jenkins sends from San Salvador, April 27, 1900, translation of a recent decree, as follows:

The National Legislative Assembly of the Republic of Salvador, considering that, in order to avoid the smuggling of foreign goods, to give greater facilities to commerce, and to improve the consular service of the Republic, it is advisable to reform the existing law regarding consular invoices, therefore decrees:

ARTICLE 1. Any person who ships articles of commerce to this Republic from a foreign country, even when they may be free of duty, must draw up an invoice in quadruplicate for the goods that constitute his shipment to each separate consignee. These invoices must be written in Spanish and contain:

(*a*) The name and address of the shipper, that of the vessel in which the goods are shipped, the name of the captain, the port of destination, the name of the person to whom the goods are consigned and that of the person by whose order and on whose account they are shipped.

(*b*) The mark and number of each package.

(*c*) The kind of package (sack, case, or bale, etc.).

(*d*) The gross weight of each package in kilograms, with the exception of machinery, lumber, and iron, the weight and price of which may be stated in round figures.

(*e*) The name of the article or articles contained in each package and the place whence they are shipped.

(*f*) The value of the goods in the currency of the country from which they are shipped.

(*g*) When wines or liquors are shipped, the alcoholic strength must be shown.

ART. 2. The consuls will not accept the invoices which show interlineations, corrections, erasures, or blots, unless these are noted at the foot by the shipper, and in such case he must pay a fine of 1 peso for each instance in which these defects occur.

ART. 3. Two or more packages with the same mark, the same number, or with the same mark and number must not be shown on the same invoice, with the exception of iron in any form (not packed), building lumber in bulk, and machinery; neither must goods for two or more persons be shown on the same invoice.

ART. 4. With the understanding that the consular invoice has a legal value in any legal proceedings or judgments that may take place, the shipper of the goods must make, at the foot of each invoice, a declaration in the following form, filled in writing: [Name] swears and declares upon his word of honor that ——— above invoice, consisting of ——— page, including ——— packages, with a total weight of ——— kilograms, and total value of [here the currency of the country from which the goods are shipped]; that the mark and number of each package, the weight and contents of the same, and the stated values are correct and conform to the entries in our books; and that the sum at which they are insured is ———.

ART. 5. Consuls will only certify invoices for the merchants or manufacturers who, either personally or through the medium of a legal representative, sign the sworn declaration relating to goods bought or furnished by such merchants or manufacturers.

Consuls must refrain entirely, under pain of removal from office, from certifying invoices for parties who are simply shipping agents of others, the fundamental object of the present law being to avoid deception as far as possible and to assure the truthfulness of said declaration, which must be signed only by the traders engaged in legitimate business with Salvador, they being the purchasers or suppliers of the goods to be shipped.

ART. 6. A false declaration in regard to the weight, contents, names, or prices of the goods, or any other particular prescribed by the present law, also the failure to comply with the conditions required by article 3, shall be punishable according to law. False declaration in regard to the amount of insurance shall be punished by confiscation.

ART. 7. The consul will put the seal of the consulate on each page of the invoice, and at the foot of the last page he will certify in the following form: "I hereby certify that the preceding invoice was presented to me by ——— ———, who placed his signature at the foot of the sworn declaration which precedes this certificate, and that the shippers are engaged in business at this place."

When there is no consular agent of this Republic at the place of embarkation, the certificate may be made by the consular agent of another nation; the invoice may be made according to the laws of the country represented by the consular agent; and, if the certificate be given by two merchants, it may be made according to the laws of the country from whence the goods are shipped. In both cases, the party concerned must forward the copies as directed by article 9.

ART. 8. The consul will note on each invoice the amount of the fee received, according to the following tariff, calculating the peso on a par with the money current in the country—that is to say, in England, 4s.; in France, 5 francs; in Germany, 4 marks; in Italy, 5 lire; in Spain, 5 pesetas.

For an invoice not exceeding $25, $1.

For an invoice of more than $25 and less than $100, $2.

For an invoice of more than $100 and less than $500, $4.

For an invoice of more than $500 and less than $1,000, $6.

For an invoice of more than $1,000, $0.25 for each $100 or fraction thereof up to $5,000.

Exceeding $5,000, $0.10 for each $100 or fraction thereof.

ART. 9. One of the four copies of the invoice will be retained by the shipper; the consul will send, if possible by the same steamer, one to the chief auditor's office and one to the administrator of the port of destination, and will retain one in the archives of the consulate.

ART. 10. Goods will not be registered in the custom-houses of the Republic, unless the consignee present the certified invoice.

If the nonpresentation should be occasioned by the miscarriage or delay of the consignee's copy, the registration may be made by virtue of the copy received at the custom-house, and, should this latter not have been received, by a certificate of the copy received by the chief auditor.

ART. 11. It is indispensable that the manifests or bills of lading of all freight destined to ports in Salvador, crossing the Isthmus of Panama, be visaed by the consular officer of Salvador in Panama, he being the only person authorized to do so.

ART. 12. All vessels bringing freight for any port of Salvador which does not cross the Isthmus of Panama must have the manifest or bill of lading visaed by the consul of Salvador in the port of embarkation.

ART. 13. The administrators of custom-houses who allow goods to be registered

without the formalities prescribed by this law will be fined in each instance 100 pesos.

ART. 14. The present decree will take effect three months after the date of its promulgation.

Given in the session chamber of the National Legislative Assembly, San Salvador, April 3, 1900.

TARIFF ADDITIONS IN SALVADOR.

Consul Jenkins transmits from San Salvador, May 2, 1900, translation of recent decrees, as follows:

The executive power resolves that the following articles, not specified in the present tariff, shall be dutiable as follows:

		Gold.*
Woven cotton cloth, white, mixed with horsehair, for stiffening linings or other purposes	per kilogram†	$0.40=$0.174
The same material, colored, with the same mixture	do	.60= .261
Straw, palm leaves, or rushes for the making of hats, unmanufactured, plain or colored	per kilogram	.10= .043
The same material, worked into bands or cords or plaited	do	.60= .261

This decree will take effect May 9.

Some doubts having arisen as to the customs duties to be applied to certain articles of tinned iron, such as water jugs, candlesticks, and similar articles for domestic or other uses, which by reason of their construction and consistency bear a resemblance to those manufactured from sheet tin, and it being desirable to avoid misinterpretations, injurious to the merchant as well as to the exchequer, the executive power resolves that in the future the articles enumerated above and those that by reason of their form and the material of which they are made bear a resemblance to them will be classified as tinware, the duty of 40 cents (17.4 cents gold) per kilogram being applied to these and to all other articles of the same material.

EXPORT DUES IN COLOMBIA.

The Government of Colombia has promulgated a decree against exports, the provisions of which are summarized as follows:

From the date of the promulgation of this decree (April 24, 1900), all exporters of produce are compelled to pay to the Government a proportion of their exports in accordance with the following stipulations: On every 125 kilograms of coffee, $10 gold; on every kilogram of hides, 10 cents gold; on every kilogram of skins, 15 cents gold; and other articles of exportation, such as mineral in bulk, gold and silver in any form whatsoever, rubber and other gums, timber, live animals, etc., are subject to an expropriation (forced loan) of 30 per cent of their value in gold.

To fix the valuation upon these articles of export, the collectors of customs are to be guided by the prices current received from abroad, and not to rely on the value declared by the shippers.

The Government has the right to fix the rate of exchange at which it will reimburse these gold values in paper currency.

* The United States Treasury valuation of the Central American peso, April 1, 1900, was 43.6 cents.

† 2.2046 pounds.

Exporters who do not wish to submit to the stipulations of this decree can be exempted from same by paying an export tax of 20 per cent ad valorem upon the gold value of the article to be exported.

AUG. T. HANABERGH,
Acting Consul.

CARTAGENA, *June 6, 1900.*

FARM LIFE IN BRAZIL.

Consul-General Seeger, of Rio de Janeiro, under date of May 3, 1900, sends a clipping from the Rio News, reading in part as follows:

A letter has been laid upon our table from the director of the agricultural department in one of the most prominent institutions of learning in the United States, in which he asks our impression as to the desirability of Americans entering farm life in Brazil. Although there are countless openings here for labor and capital in the development of agriculture, we can not say that they would be suitable or congenial for young Americans. In the first place, language, race, and institutions are all radically different and would at first be obstacles; but to these, of course, an energetic, intelligent young man could adapt himself if he tried. But farm life as he understands it does not exist in Brazil, nor will he find in this country the inducements for agricultural enterprise which exist in the United States. Climate and custom will stand in the way of personal manual labor; consequently, he must bring capital to enable him to play the rôle of a gentleman planter, directing his laborers, but not joining in their toil. Then, too, the cultivation of tropical products involves a new experience. He will have a new type of labor to direct, new conditions of weather to study, new markets with which to familiarize himself. But the really serious obstacles, in our opinion, are artificial rather than natural—unsettled and frequently disturbed political conditions, latent jealousies springing from inherited antagonisms of race and religion, crude ideas of taxation by which the development of general agricultural industries or small farming has been rendered quite impossible, a depreciated currency which unsettles values, hampers trade, and nourishes speculation, and, lastly, deficient protection from the courts. There is no lack of opportunity for enterprise, but the man who devotes himself to the development of an industry is not appreciated except as a source of revenue through the imposition of taxes. And one of the worst features of the system is the imposition of interstate import and export taxes, which confine the producer to purely local and restricted markets. An example of this may be seen every day at our ferry station, where chickens, eggs, vegetables, plants, fruit, etc., are compelled to pay an export duty to the State of Rio de Janeiro before they can reach a market in this city. The result has been that many vegetable gardens on the other side of the bay have been abandoned, because they are no longer profitable. A year or two ago, some Minas Geraes planters began producing potatoes and found a ready market for them here; but an export duty was immediately imposed upon them, and the industry was checked. Conditions like these will always operate against the settlement of this country by energetic planters until wiser and more liberal counsels prevail. In southern Brazil the climate is not unsuitable to Americans and north Europeans, and there are industries available which would amply repay them for their capital and labor; but as yet we can not advise them to come.

Mr. Seeger adds:

I will say, however, that conditions prevailing in southern Brazil justify me in recommending that rich country to the special attention of enterprising young men and investors in the United States.

PUBLIC WORKS IN PARAGUAY.

Much interest is being shown in public improvements in Paraguay. The President has just sent to Congress a project of law to create a fund to construct roads, build bridges, deepen river channels, improve the port, etc. For these improvements he asks that $500,000 be annually taken from the income of the nation.

The Finance Minister asks that 30 per cent be devoted to the construction of roads and bridges and 70 per cent to dredging rivers and constructing port walls.

The pass at Angostura in summer is almost impassable for boats coming to Asuncion, involving expense in transferring cargo.

The mayor of Asuncion has expressed a desire to have an American engineer open new streets and broaden old ones in the city.

Arrangements are being made to build a narrow-gauge railroad from San Pedro to the river. There is an opportunity for good returns on capital invested in the construction of short railways. Parties interested should communicate with Señor Carlos R. Santos, who speaks and writes English and was the Government delegate to the Philadelphia Commercial Congress.

A representative of German bridge and road building firms is now conferring with the administration relative to the projects above referred to.

There is a plan to open up ports at the towns of San Pedro, Rosario, Villetta, and Paso de Patria. San Pedro and Rosario are important points for shipment of tobacco, skins, hides, and yerba mate. Villetta has considerable commerce in the exportation of oranges, and would make much progress with a port; Paso de Patria, situated at the south end of the Republic, is the doorway of the River Alta Parana and the extensive zone of the Missiones—the rich cattle section. For further information in regard to these towns, see my report under date of August 30, 1899.*

Studies are being made to ascertain the cost of constructing a system of water works for Asuncion.

JOHN N. RUFFIN,
Consul.

ASUNCION, *May 1, 1900.*

* CONSULAR REPORTS No. 232 (January, 1900); ADVANCE SHEETS No. 571 (November 4, 1899).

AGRICULTURAL EXPORTS FROM URUGUAY.

The customs authorities have just given out the official statement of the quantity and value of the agricultural exports of the Republic of Uruguay for 1899. The report is of special value in showing the growing exports of wheat, flour, and maize. Most of the wheat went to continental ports; but the flour was almost wholly taken by the Brazilian market, where it is winning a good name for its excellent quality. It should be borne in mind that in 1899 the River Plata flour a little more than equaled the other imports of flour into the Brazilian markets, and in a comparatively short time that trade will probably be almost exclusively controlled by the River Plata product. New mills of the best American patterns are being contracted for, and the product will be handled in the most modern manner.

The official returns are:

Articles.	Quantity.	Value.
	Kilograms.	
Graham meal	13,900	$323
Onions and garlic	.....	6,159
Alfalfa (lucern)	174,515	3,173
Bran	7,769,909	91,225
Middlings	1,519,789	21,707
Balang (wild barley)	200	2
Barley	380,692	4,954
Fresh fruit	.....	28,818
Garance	2,250	18
Flour:		
Wheat	20,726,000	659,680
Corn meal	6,070	152
Vegetables	.....	956
Peanuts	690	18
Corn (maize)	10,926,407	130,057
Sweet potatoes	620	12
Linseed paste	167,530	5,330
Peanut paste	84,190	3,368
Turnip paste	11,500	460
Dried fruits	23,795	866
Broom straw	*211,726	5,928
Thatch	300	12
Hay	238,920	2,373
Beans	500	15
Linseed	604,632	18,974
Alfalfa seed	505	101
Castor beans	61,900	1,238
Wheat	62,673,190	1,367,750
Grapes	25,000	1,250
Total	.....	2,354,419

* Packages.

ALBERT W. SWALM,
Consul.

MONTEVIDEO, *May 26, 1900.*

PUERTO CABELLO TRADE NOTES.

Consul Ellsworth sends the following from Puerto Cabello, May 21, 1900:

While trade is somewhat quiet, compared with that of one year ago, it is improving. Representatives of European houses of commerce are appearing, and I am informed that they are meeting with success in sales. The agent of the dry-goods house of Thomas Taylor & Co., Dundee, Scotland, is just leaving here for the Republic of Colombia, after having secured large orders in Caracas, La Guayra, Valencia, and Puerto Cabello, Venezuela.

Coffee and cocoa have been arriving in considerable quantities, despite the bands of guerrillas roaming about the interior. The larger part is exported to Europe. Hides and skins are shipped to the United States.

The exports from the consular district of Puerto Cabello for the month of April, 1900, aggregated:

Country.	Quantity.	Value.
	Pounds.	
United States	246,101	$23,954
France	5,362,221	395,912
Germany	145,596	13,353
Holland	21,749	1,248
Italy	81,919	6,256
Spain	161,843	14,855
Total	6,019,429	455,578

The imports into the district for the same month were:

Country.	Quantity.	Value.
	Pounds.	
United States	1,052,534	$33,355
England	125,724	21,447
France	48,633	6,068
Germany	368,611	15,402
Holland	44,460	4,000
Italy	13,757	1,015
Spain	93,991	5,663
Total	1,747,710	86,950

These imports consisted of grocers' sundries, dry goods, drugs, etc.

The Bolivar Railway Company has repaired its steamer *Barquisimeto*, and it is now making about three trips each week between this port and Tucacas, the terminal of the Bolivar Railway, which

extends into the interior of Venezuela and connects with the Southwestern Railway to Barquisimeto. Both of these railways (English companies) are very busy handling the coffee, cocoa, hides, etc., arriving from the interior at the present time.

The copper mines and smelting works of the English company at Aroa, on the Bolivar Railway, have not been in operation for some time, although it is claimed there is copper in paying quantities.

Under date of May 8, Mr. Ellsworth said:

The Venezuelan Government has extended for nine months the time in which Mr. William H. Volkmar, an American residing in Puerto Cabello, must commence the manufacture of whisky, in order to comply with the contract under which he obtained the concession for the manufacture of that article in Venezuela. He is required to deposit with the Minister of Fomento 16,000 bolivars (about $3,088) as a guaranty that the manufacture will actually be commenced before the expiration of the extension.

The vast cocoa estates in the valleys of St. Esteban and Goaigoasa, just outside the city of Puerto Cabello, are being surveyed by Mr. Fred. R. Bartlett, civil engineer, of Maryland.

The Puerto Cabello wharves and custom-house are receiving extensive repairs.

TRADE IN THE DANISH WEST INDIES.

Business continues depressed, though there was an increase of $40,000 in the value of the imports received in this port from the United States in 1899. Imports from the United States into Christiansted and Fredericksted, St. Croix, were about the average of late years.

The year 1899 was a great crop season for St. Croix, the yield being many per cent more than ordinary. Most of the sugar was exported to the United States, the natural buying and selling market for the Danish West Indies. The provision trade is almost wholly with the United States, but the dry-goods trade is with Europe. European houses have sought the trade and probably will continue to keep it until American houses study the wants of tropical countries.

There are many cabinetmakers here who manufacture furniture of the beautiful hard woods that grow so readily in these parts—cedar, mahogany, etc. I have seen at least fifty different kinds of hard woods that could be polished with most satisfactory effect.

American or European soft woods will not last in this climate. They are destroyed by an insect called the wood louse. This seems not to be understood by foreign manufacturers of furniture, such as pianos, for instance. I have seen an instrument honeycombed by these little creatures and rendered useless.

The wood most commonly used for building purposes and for furniture is the hard pine of the southern part of the United States. Many cargoes of this lumber are brought here.

St. Thomas is preeminently a coaling station. This fact is being emphasized more and more each year. Steam navigation of the ocean, with cable facilities, has caused this port to lose the position of commercial provider for the West Indies; but as a coaling station it is without a peer, all things considered. A hundred thousand tons of coal were handled here twice during the past year, the Hamburg-American Line alone using more than 6,000 tons per month. The present superintendent of the company's wharf, still a young man, says he remembers when 6,000 tons was a large quantity of coal to handle during twelve months. At the present rate of use, the quantity needed will be 75,000 tons for the next twelve months, and it is to be remembered that every pound of this coal is American.

The Gle Transatlantique Steamship Company is also a large consumer of steaming coal, which is stored here and used for its own steamers exclusively. The average per month is 1,000 tons.

The only steamship companies not using American coal are the La Veloce Navagazione Italiana and the Royal Mail of London, which employ Welsh coal in small quantities.

Brondsted & Co. keep the only sale depot and have a variety of customers. During the past year, the managers have supplied American, English, French, German, Italian, Dutch, Austrian, Dominican, and Russian men-of-war with United States coal, as well as a number of ships which had used up their supply at sea.

St. Thomas, lying as it does in the track of commerce and offering a commodious and safe harbor, must in the near future—especially when the isthmian canal is finished—become the relief station and coal-supply depot of the middle Atlantic.

MAHLON VAN HORNE,

ST. THOMAS, *May 16, 1900.* *Consul.*

MINERAL RESOURCES OF HAITI: RAILWAYS.

The great need of this Republic is easy means of communication from one section to the other. At present, there is no way of communicating with the cities located in the north (Cape Haitien and Port de Paix), except by a long and rugged road which follows the coast nearly the entire distance, then crosses the northern range of mountains, requiring at least four days of steady travel on horseback, though the distance from the capital to Port de Paix is only 159 miles, and to Cape Haitien 180 miles. By water (steamer), it requires two days. The capital, Port au Prince, is 69 miles from St. Marc and 99 miles from Gonaives.

On account of the great fatigue in traveling by this inland road, many are compelled to resort to sailing vessels of about 30 or 40 tons; these are engaged entirely in the coasting trade, have no convenience or comfort, and are also slow. Unless the wind be in their favor, it takes from two to three days to reach the cities named. The traveler has the option of awaiting the arrival of the steamers from the United States or Europe that stop at these ports.

The communication with the south side of the Republic is equally difficult, taking four or five days by sailing vessel and two days by the steamers, the latter stopping only at the larger cities. By horseback to Jacmel takes twenty-four hours, though the distance is but 39 miles.

It is for the want of means of communication that the interior is without cities, though in some of the valleys are to be found rich and fertile lands.

The Government has recently made concessions to several parties to build railroads—one in the south to the salt lakes, a distance of 50 miles. This road, when constructed, is to eventually connect the capitals of the two Republics (Haiti and the Dominican Republic), and will open a rich agricultural and mineral section. Another railway to the north through St. Marc, Gonaives, and Port de Paix will have its terminus at Cape Haitien. One is now in course of construction from Cape Haitien to Grand Riviere, a place of some considerable size near the base of the Cibao range. Rails have been laid for a distance of 8 miles.

The Government derives no advantage from these concessions. It grants to the concessionnaires all the benefit that will accrue from them.

The extent of the mineral deposits of the Republic must remain unknown until there is a better system of communication. In order

to understand the location of these deposits, it is necessary to consider the topography of the country.

The principal mountain range is the Cibao, extending through the center of both Republics from Cape Engano, the eastern limit of Santo Domingo, northwesterly to the Mole St. Nicholas. There are several parallel ranges, but the height of the same is considerably less than that of the Axial chain. In the southern peninsula there is another range which might be termed an offshoot of the principal one, known as the Hotte Mountains. The main range is igneous in character.

Professor Gabb, a member of the commission appointed in 1870 to report upon the mineral wealth of Haiti, states:

> No formation older than the secondary era has been found on the island; the oldest group being the great mass of slates, conglomerates, and limestone, which form its core. These are uptilted and broken by numerous intrusive masses of crystalline rocks, which may be for convenience grouped under the generic term of *Syenite*, since they almost invariably consist of the three necessary minerals—quartz, feldspar, and hornblende. It everywhere shows the evidence of active subterranean forces, and over much of its area the metamorphic action has been so complete as to destroy the traces of stratification. Wherever the slates occur in the neighborhood of the eruptive rocks, there gold occurs in most, if not all, of the included quartz veins, and the streams are always more or less auriferous.

Charlevoix, a celebrated historian, in describing the mineral wealth of the island, states:

> Among the metals one can find in abundant quantities are gold, silver, copper, iron, antimony, tin, sulphur, coal, white marble, jasper, and a mountain of rock salt as clear as crystal.

These mines were successfully worked by slave labor (it is estimated that 75,000 slaves were brought from Africa for the purpose), but on account of the cruelties practiced by the owners, one of the first steps taken by the President of the Republic when the independence of Haiti was declared was to close all the mines and to forbid future working. The reason given by Dessalines (and his course has been followed by those who have succeeded him) was that the exploitation of the mineral wealth would attract to the country an undesirable class of people; he also desired the agricultural development of the country. The present administration, however, will welcome outside capital.

During the past few years, some of the old mines have been found, and an effort is being made to work them. Copper ore containing from 40 to 50 per cent of pure copper has been located in the northwest, south of Port de Paix and north of Gonaives. This region is also rich in iron, containing from 68 to 70 per cent of that metal. East of this district, beds of coal have recently been

discovered, miles in extent; here can also be found marble porphyry, kaolin, tin, and antimony.

In the southern section of the Republic, or that part traversed by the Hotte Mountains, copper and magnetic iron are found. To the north of Jacmel gold has been discovered in paying quantities.

Within the last year, the Government has given concessions to develop these mineral resources, several of which are held by Americans. The principal one—the opening of the coal belt—has been granted to Mr. Anton Jaegerhuber, an American citizen, the head of one of the leading commercial houses in Port au Prince. This gentleman also holds the concession to construct two lines of railway, one to the north from the capital, the other east towards the Dominican borders, both of which will develop a rich section of country.

W. F. POWELL,
Minister.

PORT AU PRINCE, *May 30, 1900.*

NOTES.

New German Glass.—Under date of May 29, 1900, Consul Hughes writes from Coburg:

In the Saxon Art Club at Dresden there are on exhibition at present two large glass pictures exemplifying a new kind of material called "Theophilus glass," which the manufacturer thinks unites the advantages of American opalescent glass with the capacity of being able to stand the burning-in process. The firm of Putzler Brothers, in Penzig, has been manufacturing for some time this glass, as made by A. Freystadtl. The way in which it is made, it is claimed, is quite different from that of the American opalescent glass. It receives its color in a pot and is then blown in large cylinders—a process quite similar to the manufacture of window panes. The windows manufactured by Freystadtl show on large unpainted places (which would appear empty and hard if ordinary glass had been used) a mild luster and a soft play of color. Freystadtl has received a large order for supplying the newly built house of the St. John's Guild, at Riga, with figures, coats of arms, and ornaments in this material. Looking at this new discovery from an impartial point of view, the Theophilus glass is wanting in that beautiful luster and finish of our world-known Tiffany glass, many poor and inartistic imitations of which are being put by Germans on the markets of the world.

Tool Trust in Germany.—Consul-General Guenther writes from Frankfort, June 12, 1900:

The manufacturers of first-class tools and of iron and steel goods in Westphalia and the Rhenish Province have formed a trust. Its avowed purpose is to fight foreign competition in tools, etc., and the menacing commercial invasion from the United States. At the same time, it is intended to combat the domestic production and sale of shoddy goods at ruinous prices. Every competent manufacturer who obligates himself to sell only first-class goods and mark them with the firm's name and price can become a member of the union. The sale of poor and defective articles will result in expulsion. A committee will supervise the quality of the goods. The sale will be regulated by the union as much as possible, especially as to prices, terms, etc. For effective opposition against foreign competition, united action will be inaugurated.

Soap Trade in Mannheim.—Consul Harris writes from Mannheim, June 22, 1900:

The Sunlight Soap Company, an English concern, has completed a large plant at Rheinau, a suburb of this city, for the manufacture of laundry and other soaps for domestic use. The building is about 600 feet long and is well equipped with machinery for soap making and with printing offices and other facilities for preparing advertising matter. The company is one of the largest advertisers in this locality and has for some time practically controlled the soap trade in the surrounding towns and villages. No American soap is sold here, so far as I know. As Mannheim and its suburban villages have a population of nearly or quite 225,000, largely engaged in manufacturing and in railroading, the district would seem to offer a good field for our own trade in this line. Mannheim is a center of distribution for petroleum and many other products. The fact also that this locality exports very largely to the United States (nearly $4,500,000 per year) removes much of the hostility that might otherwise exist against our goods.

German Shoe Experts at Paris.—Consul Warner, of Leipzig, under date of June 8, 1900, informs the Department that at a recent meeting of the Weissenfels Guild of Shoemakers and Leather Workers, an expert was selected to visit the Paris exposition. The Prussian Government has appropriated 300 marks ($75) toward the project. The shoe industry at Weissenfels, adds Mr. Warner, is growing very rapidly. It has now about sixty shoe factories, which employ over 2,000 workmen. Last year, the value of the shoes manufactured amounted to 10,500,000 marks ($2,499,000). It was undoubtedly for this reason that the German Shoemakers' Guild requested the Weissenfels branch of the organization to send an expert factory shoemaker to the exposition. An expert hand shoemaker will be sent to Paris by the Berlin Shoemakers' Guild, and the Leather Workers Guild of Mühlheim will send a tanner.

German Automobile Mail Coaches.—Consul-General Guenther writes from Frankfort, May 25, 1900:

The "Automobile Company of Speyer," organized last year with a capital of $24,000, has five automobiles in use, representing an investment of about $14,500. They are propelled by a benzine motor, in front of the vehicle, of 10 horsepower, and were built by the Daimler Automobile Company, of Cannstadt. Each coach is capable of carrying twenty-eight passengers, and the company has a contract

with the post-office department to carry the mails (which includes packages, etc., usually sent by express in the United States) to Dudenhofen, Geinsheim, Honhofen, Harthausen, Mechtersheim, Otterstadt, and Waldsee—2 to 10 miles away. In the five months since starting, more than 40,000 passengers have been carried.

Horse and Dog Meat as Food in Germany.—Consul-General Guenther writes from Frankfort, May 26, 1900:

On account of the high price of other meat, not only horse meat, but also dog meat, is used by people as an article of food in Germany. The new meat-inspection bill (called here "a law to raise the price of meat") does not adequately protect the consumer against bad meat, but excludes many first-class products from the country.

According to the statistical yearbook of German cities, it appears that the consumption of horse meat is on the increase, and in Breslau, Chemnitz, Dresden, Leipzig, Zwickau, and other places dogs are slaughtered for food.

Acreage of Sugar Beets for the Year 1900.—Consul Diederich writes from Bremen, May 28, 1900:

The International Union for Statistics on Sugar has just published the following statement as to the number of acres that have been planted with sugar-beet seed:

Country.	1899.	1900.	Increase.
	Acres.	*Acres.*	*Per cent.*
Germany	1,057,939	1,090,521	3.1
Austria-Hungary	804,063	839,151	4.4
France	626,480	685,392	9.4
Russia	1,261,614	1,356,075	7.5
Belgium	158,235	170,028	15
Holland	109,703	112,878	2.9
Sweden	65,238	71,271	9.2
Denmark	34,594	34,594	.....

From the foregoing, it will be seen that the increase in acreage over last year is comparatively small, with the exception of Belgium, which shows an addition of 15 per cent.

Italian Electric Cartridges.—Consul Hughes, of Coburg, May 19, 1900, says:

An Italian electrician has invented an electric cartridge, which he offers as a substitute for dynamite and smokeless powder in mines,

rock blasting, and for heavy ordnance. The composition used in the cartridge is made up of carbonates of potash and chloride of ammonia, the proportion varying according to the use. The discharge is effected by an electric spark, which produces electrolytic effects upon the chemicals. The inventor claims that the cartridges, until subjected to the effect of electricity, are entirely inoffensive and perfectly safe; so that there will be no necessity for isolating the magazines where they are stored.

Cheese of Pasteurized Milk in Sweden.—Consul Nelson writes from Bergen, May 30, 1900:

Cheese of pasteurized milk has until lately been considered almost impossible to produce, and dairymen have been at a loss how to use the churn milk, which has been sold as feed for pigs or thrown away. A short time ago, a chemist at Stockholm—Dr. Frans Elander—succeeded in effecting a preparation that solved the above-mentioned difficulties. Owing to this discovery, which has been named "caseol," palatable and nourishing cheese, free of tubercular bacilli, can now be made from pasteurized skim milk. This preparation has, moreover, the excellent quality of rendering cheese more digestible. Several dairies in London have made experiments with caseol, with the same favorable result. I will gladly procure samples of caseol for any of our dairymen who may desire to make trials with it.

American Passports in Hungary.—The Department is advised by Minister Harris, of Vienna, under date of June 25, 1900, that the Royal Hungarian Ministry of the Interior issued on May 29 a circular stating that the protection accorded by paragraph 32 of the ordinance of the Ministry of the Interior of April 18, 1898, to persons bearing a United States passport or certificate of naturalization extends also to those whose passport has not been visaed or whose certificate of naturalization has not been authenticated. The procedure described in the same paragraph—namely, the petitioning for a Government decision with simultaneous presentation of documents of citizenship—is to be dispensed with in those cases where the party, in accordance with section 38 of Law VI of 1889, can not be held for subsequent performance of military duty, or where, in accordance with section 67 of the same law, criminal process can not be instituted.

Foreign Commercial Travelers in Roumania.—Vice and Acting Consul Monaghan, of Chemnitz, under date of May 18, 1900, says:

From Bukharest comes the following report: According to a new law, every commercial traveler must prove, by means of a power of attorney from the firm he represents, that he is lawfully empowered to transact business for the same. It is sufficient if the power of attorney be authenticated by the officials of one's native country.

Commercial Travelers in Switzerland.—Consul Morgan, of Aarau, under date of May 25, 1900, writes:

During the year 1898, 23,585 commercial travelers were on the road in Switzerland. In 1899, the number was increased to 25,691. Of these, 20,065 were Swiss, 3,828 German, 1,176 French, 350 Italian, 173 Austrian, 49 Belgian, 28 English, 18 Dutch, 8 Spanish, 1 Swede, and 1 American. From these figures, it is not surprising that Germany, France, and Italy should have captured the lion's share of the Swiss import trade.

Waterworks at Moscow.—Consul Smith, of Moscow, under date of June 23, 1900, says:

The Moscow municipality has been granted by the Government the privilege of issuing a loan to the extent of 14,000,000 rubles ($7,000,000) for the purpose of enlarging the capacity of the Moscow waterworks. The population of this city is increasing rapidly, and on that account the water-supply question has become a serious matter, requiring immediate attention. The loan was granted in consequence of a water famine, which occurred a month ago and lasted about five days, through a breakage of the main supply pipe at the connections near the waterworks. Foreign manufacturers are invited to make bids for contracts in supplying machinery, etc.

Price of Hay in Southwest France.—Consul Tourgée writes from Bordeaux, June 27, 1900:

Speaking of the effects of the unusual inundations which have occurred in all the southern Departments of France this year, a correspondent of the Gironde, a daily paper of Bordeaux, writing on the 25th of June, 1900, says: "Already the price of hay has this year touched the enormous price of 9 francs per 100 kilograms ($1.73 per 220 pounds, or about $16 a ton)." This is in the midst of the hay harvest, and the quality is not only very bad, but the weight

very great, because of the sand washed over it on the meadows of the river bottoms. The ordinary price at this season is about half that now demanded. An unusually large amount of corn (maize) has been sown in this region to supply the lack of fodder. At the present writing, it looks exceedingly well throughout the southwest, and if the season is favorable bids fair to supply to a great extent the deficit in the hay crop.

French Crop Reports.—Consul Atwell, of Roubaix, under date of May 31, 1900, informs the Department that, according to recent estimates, an area of 6,644,971 hectares (16,419,723 acres) sown in wheat will yield 104,989,159 hectoliters (297,854,244 bushels), a mean yield of nearly 15 hectoliters (42.5 bushels) to the hectare (2.471 acres), against 18.64 hectoliters (52.8 bushels) last year, or a decrease of some 24,052,800 hectoliters (68,088,000 bushels), due to the severe winter. The probable production of rye will be 22,107,003 hectoliters (62,717,568 bushels), against 24,052,800 hectoliters (68,237,794 bushels) last year. The full text of Consul Atwell's report has been sent the Department of Agriculture.

Fruits in France.—In response to inquiries from the Oregon State board of horticulture,* Consul Covert writes from Lyons, June 25, 1900:

The apple crop promises to be remarkably plenteous. It is even believed that the abundance will make prices ruinously low. Pears, prunes, and peaches will also be plentiful; but the apple crop will be largely in excess of all others. The yield of cherries is large; they now sell at retail in Lyons at 1 and 2 cents per pound. Grapes promise well; hail has injured the vines in one or two localities.

Preventing Incrustation in Boilers.—Consul Hughes sends the following from Coburg, May 17, 1900:

Mr. A. Reis, of Antwerp, has patented the following method for preventing incrustation in boilers: A mixture of sugar, tannin extract, silicate of potash or soda, and boric acid is added to the boiler water to keep the salts in solution; when the water attains a density of about 15 to 25 Bé, the boiler is "blown off." The working periods range from a fortnight to three months, according to the quality of the water in use. Glycerin and alkaline sulphates are sometimes used in the mixture.

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* Which has received ADVANCE SHEETS of the report.

New German-American Cable.—Consul Hughes reports from Coburg, June 23, 1900:

On April 2, Germany commenced laying the Emden-New York cable via the Azores. The Emden-Borkum section is partly on land; from the island of Borkum it is an all-sea cable. The cable will have a length of 8,020 kilometers (4,984 miles), and will, altogether, cost very nearly £1,000,000 ($4,866,500). It is hoped to complete the task during this summer, so that the new cable may be opened by October next.

The Supply of Gutta-Percha.—Under date of May 19, 1900, Consul Hughes, of Coburg, writes:

According to a work on the subject just published in Germany, the supply of gutta-percha is almost exhausted, owing to the reckless and primitive way in which the trees were treated in Sumatra and Borneo, whence the principal output has come. As these trees will flourish only in a very few places, the question has become serious. The book adds that the Philippines is the proper place to grow gutta-percha cheaply and profitably.

Demand for Old Casks in Great Britain.—The Bureau of Foreign Commerce has received the following letter, dated July 17, from Frederick W. Bennett, Horsecastle, Yatton, Somerset, England:

I should feel much obliged if you would, through the CONSULAR REPORTS, make known my requirements to the cooperage trade in the United States. I am a buyer of second-hand casks, such as are originally imported into the United States containing foreign wines and spirits, viz, puncheons, pipes, hogsheads, quarters, etc. My port of delivery would be Bristol or Avonmouth, and I should be glad to receive prices for such casks, either shooked or packed in each other, as convenient.

Demand for Machinery in Canary Islands.—Consul Berliner writes from Teneriffe, July 11, 1900:

The United States consular agent at La Palma, Mr. Manuel Yanes, has received from the Spanish Government the contract to finish the mole at Santa Cruz de la Palma. This will involve an expenditure of 3,000,000 pesetas (at present exchange, about $475,000), and when finished will make one of the safest and best harbors in these islands. His contract is for 400 meters (1,312 feet)—100 meters to be 100 feet and the balance 50 feet broad. He is desirous of getting improved machinery from the United States. He needs, by next January, a crane, and also 1 mile of rails, with an engine and ten cars for loading stone from the quarry.

If circulars and price lists were sent him, no doubt it would lead to an order and an opening for our machinery in this market. All letters should be addressed to Manuel Yanes, Santa Cruz de la Palma, Canary Islands.

A Commercial School for Tiflis.—Consular Agent Harris, of Eibenstock, June 11, 1900, writes:

On the 13th of May, the first commercial school in Caucasia was opened. It has a curriculum which covers nine years. The institute has its own funds, which amount to $102,800. The merchants of Tiflis also contribute $7,000 annually to its support. The tuition costs $50 per capita each year.

After completing the prescribed course in this commercial school, the student may be admitted without further examination to any of the technical universities. He is also fitted to obtain Government employment, and has the further advantage of having to serve only one year in the army.

Trade of Smyrna.—Consul Hughes sends from Coburg, June 22, 1900, translation of an article from the Berlin Handels Museum, as follows:

Smyrna is gaining every year in importance as a place of commerce; thanks to the development of agriculture and the opening of the two new railroads, the exports and imports are steadily increasing. The numerous lines of steamers calling at Smyrna provide means for quick transportation at low rates. There exist at present direct steamship connections with United States, Canada, Australia, and India. The year 1898–99, having been very dry, has not been favorable to the export, and yet there were shipped 78,000,000 francs' ($15,054,000) worth of goods; 48 per cent of which went to England. The principal articles for export are barley, opium, figs, beans, sesamum, sultana raisins, etc.

Dutch Demand for Coal.—Consul Harris, of Mannheim, under date of May 19, 1900, says:

I have to advise the Department that I am receiving frequent requests from local coal dealers and manufacturers for prices of American coal on board ship at Rotterdam. These inquiries are from responsible parties and relate both to anthracite and bituminous coal. The people in this consular district are watching with intense interest the introduction of American coal. All prices for this market should be quoted f. o. b. Rotterdam. I have promised to ascertain approximate prices for parties here and shall be greatly obliged for information touching the matter, with names of shippers from most available point for this market.

Belgian Demand for Coal.—Consul Brundage writes from Aix la Chapelle, May 30, 1900:

I have had an interview with a gentleman by the name of Henri Coopman, coal dealer of Verviers, Belgium, who purchases annually 200,000 tons of coal and bought to-day at mines in this district 10,000 tons at 160 marks ($38.08) per car of 10 tons f. o. b. cars at mines. He expressed an urgent desire to be informed of prices and ability to deliver American coal at Antwerp, Belgium. Agents of bituminous coal, semibituminous, and semianthracite seeking foreign markets should at once correspond with him, quoting prices and analyses.

Coal at Breslau.—Consul Erdman writes from Breslau, July 5, 1900, that the director of the local city gas works has informed him that the works would like to make an experiment with several carloads of American coal, provided the price and quality are satisfactory.

United States Coal for Brazil.—Minister Bryan writes from Petropolis, June 1, 1900, that in response to a note to the Brazilian Foreign Office, requesting information as to a contract for furnishing pit coal to the Central Railroad of Brazil, he has been informed that there is no doubt that United States coal will be used if it is of superior quality to coal already presented for trial. Copy of the last contract, with specifications, was sent Mr. Bryan and will be transmitted by him and printed in ADVANCE SHEETS as soon as received. The opportunity seemed so favorable to the minister that he sent notice in advance, without waiting to translate the specifications.

Foreign Trade-Marks in Brazil.—Minister Bryan writes from Petropolis, June 11, 1900, that he has protested against the Brazilian law enacted last November, forbidding the importation of manufactures that carry labels, prescriptions, or trade-marks in Portuguese or partly in that language, which law would cause serious loss to importers of United States proprietary medicines. The 1st of July was named as the date for putting the law into effect, but Mr. Bryan has obtained a postponement until October 1, and hopes that Congress will repeal the law. Mr. Bryan argues that labels are a part of trade-marks, and that consequently the law is in violation of the convention of 1878 between the United States and Brazil. He advises all American exporters to conform to the requirements of that agreement, by registering their marks in Brazil.

Export of Argentine Wheat.—Consul Winter, of Annaberg, under date of June 14, 1900, quotes from the Handels Museum, of Berlin, the following:

Never before has the export of wheat from Argentina reached such proportions as at present. During six successive days of one week 4,296,000 bushels, or 716,000 bushels per day, were exported. This enormous export of wheat is attracting the attention of the entire world. In 1892, Argentina exported 23,000,000 bushels. In 1899, the amount had increased to 63,000,000 bushels.

With coming years, the exports of wheat from Argentina will continue to increase. The harvests this year promise to be especially good, as the weather thus far has been favorable. In all probability, there will be 75,000,000 bushels exported. The area of wheat culture is being increased every year, and so productive is the soil that the average yield is from 11 to 13 bushels per acre.

The wheat region of Argentina is favored, in that the seacoast is not far distant. In this respect it has an advantage over the wheat section of the United States. But the freight from Buenos Ayres to Europe is much greater than from any port in the United States, so that it costs three times as much to send a cargo of wheat from Argentina as from the United States.

The wage rate in Argentina is cheap. The farm laborers are for the most part Italians. They receive from 50 cents to $1.50 per day. Owing to the mildness of the climate and the cheapness of food, the farm laborer in Argentina has fewer expenses than the same kind of labor in any other country.

Diseased Argentine Cattle at Cape Town.—Consul-General Stowe writes from Cape Town, May 15, 1900:

Large numbers of slaughter stock have been arriving here from the Argentine Republic, but a recent occurrence may possibly prevent future shipments. A cargo of live cattle afflicted with the "foot-and-mouth disease," known as *Epizootic aphtha*, was quarantined, but thirty-nine escaped, and after a hunt twenty-seven were shot. The cattle were wild, and, during the time which elapsed between their escape and their death, roamed over a large tract of country and mixed with herds of colonial cattle. It seems that there was a previous arrival of infected cattle, which were slaughtered on ship and some of the meat sent ashore. The governor of the colony has issued an order prohibiting the landing of cattle or sheep from the Argentine Republic and Uruguay at any port or place in the colony.

There is a good opening here for slaughter cattle, and Americans should try to secure a share of this trade.

Australian vs. American Meat in South Africa.—Consul Halstead writes from Birmingham, under date of June 25, 1900:

The Sydney correspondent of Sell's Commercial Intelligence reports:

Advices from South Africa state that the British and colonial troops prefer Australian meat to that imported from America; consequently large orders have

been placed with colonial houses, but the increasing scarcity of live stock will occasion considerable delay in their execution. The American tinned meats are declared to be inferior in quality to the Australian commodity, but Americans in Melbourne and Sydney hint at the possibility of a quantity of low-grade goods having found their way into the South African market. There has certainly been a lot of rubbish sent thither, a matter to which the United States consuls will probably give some little attention.

It should be noted that English commercial publications always anticipate effective work from American consuls. If it be true that low-grade tinned meats have been sent by the big American packing houses to South Africa, and for this reason Australian meat is preferred to American meat, it is simply another illustration of the shortsightedness of some American manufacturers.

Tariff Bill in Uruguay.—Consul Swalm, of Montevideo, under date of May 28, 1900, reports:

The commission to examine into needed tariff changes for Uruguay has submitted a report to the Government, in which the whole list of importations came in for "harmonizing changes." The import rate on American lumber was much reduced, and other favorable changes were made. But it was found that the rates would not afford the requisite amount of customs revenue; therefore, all that could be done with the report was to file it away for future reference. There will, it is said, be no modification of the tariff on any goods or products coming into Uruguayan ports for several years to come, notwithstanding the great need of cheap building material for the development of the country.

Financial Measures in Haiti.—Minister Powell transmits from Port au Prince, June 19, 1900, text of a law now before the Chambers, which proposes to pay the bonds and interest of the sinking fund as they fall due in gold, instead of in paper, as heretofore. By this law, adds the minister, while the value of the bond is reduced, its intrinsic value is increased on account of the heavy rates of exchange for the past three years. These bonds are to be exchanged at the rate of 66⅔ per cent of their value. Under date of June 12, Mr. Powell informed the Department that Haiti had adopted the United States gold dollar as a unit of value. As previously noted in the consular reports,* the nominal basis of currency operations has for years been United States gold, although this has not been in circulation, paper or silver gourdes being used. An effort is probably being made to bring the national currency to par.

*See Special Consular Reports, Money and Prices in Foreign Countries, Part I, p. 171.

United States Vessels at Vancouver.—Consul Dudley, of Vancouver, on June 27, 1900, writes:

About three months ago, arrangements were made which prevented vessels from the United States bound for ports in Alaska calling here en route. It was understood that this action was taken as a retaliatory measure, because British vessels were not given certain privileges which they desired in the ports of the United States.

The people here now seem to be convinced that the driving away of American vessels has had a prejudicial effect upon the business of this city. It is stated, upon what seems good authority, that the United States vessels which formerly called here on their way to and from Alaska will be asked to resume the old custom.

Formerly, there was a very considerable fleet of American vessels making regular calls here, thereby furnishing Vancouver merchants frequent opportunities for making shipments to Alaska and the Yukon Territory.

Pulp Mill in British Columbia.—Under date of June 27, 1900, Consul Dudley, of Vancouver, says:

I learn upon good authority that a large mill for the manufacture of pulp (handling 70 tons per day) is about to be erected at a point not far distant from this city. There is a large amount of spruce timber about 100 miles north of Vancouver well adapted for pulp making.

Foreign Shares in Japanese Railways.—Minister Buck writes from Tokyo, June 9, 1900, that the Minister of Communications has sanctioned the ownership of shares in Japanese railway companies by foreigners. This action was the result of inquiry from several railroad companies in the country, stating that as the law did not forbid it, it was thought that foreigners had the right of ownership in their shares, and asking instructions. One railroad company has applied for permission to change the articles of incorporation limiting the ownership of shares to Japanese subjects, which has been granted, and it is understood that other companies, as well as the one referred to, are to change their prohibitory articles in respect to ownership of shares by foreigners. The above, says Mr. Buck, may interest business men in the United States who may be inclined to invest in railroads in Japan.

Steamship Service with Chungking.—Consul Smithers, of Chungking, on May 7, 1900, sends a clipping from the North China Daily News giving an account of the launching of the first merchant

steamer to run between Ichang and that port. The *Pioneer* is expected at Chungking in June, 1900. The clipping reads:

The *Pioneer* is a steel paddle steamer, built by William Denny & Bros., of Dumbarton, sent out in pieces and put together here at the Oriental Dock. Her length between perpendiculars is 180 feet; breadth molded, 30 feet; and depth molded, 10 feet. She is to have accommodation for fourteen first-class, thirty second-class, and ninety third-class passengers. She will be propelled by two sets of diagonal, compound, direct-acting, surface-condensing paddle engines, with boilers working at 125 pounds. The paddle wheels have feathering floats, and each pair of engines is completely separate and independent of the other. Each set of engines has two compound cylinders of 18½ and 32 inches, with a stroke of 5 feet.

Musical Instruments in the Philippines.—Consul Winter sends the following from Annaberg, June 12, 1900:

The French consul in Manila calls attention, in a report, to the favorable opportunity for selling musical instruments in the Philippines. He says there are few of the natives who do not play some sort of an instrument, such as a mandolin, guitar, violin, or flute. The musical talent of the people is great. Thus far, the business has been done principally by Americans. The consul thinks German manufacturers, if they would study the conditions of the market, could secure much of the trade. Only the cheapest sort of instruments can be sold, for the Tagal, as a rule, is not able to pay high prices. Instruments which have a showy exterior are preferred.

Conditions in Kiangsu Province.—Consul-General Goodnow reports from Shanghai, June 8, 1900, that the crops in that region are abundant and the inhabitants prosperous. New machines and methods of transportation have not yet thrown any of the people out of work. Accordingly, there is no destitution upon which to found agitation, such as prevails in northern China.

Property Tax in Madagascar.—Consul Gibbs, of Tamatave, informs the Department, under date of May 3, 1900, that a tax of 5 per cent of the tenantable value of houses in Tamatave has been established by the governor of Madagascar. The full text of the decree, transmitted by the consul, has been filed for reference in the Bureau of Foreign Commerce.

Certificates of Origin in Turkey.—The Department has received a cablegram from Mr. Griscom, chargé at Constantinople, dated July 31, 1900, to the effect that the Porte has instructed the

customs not to demand certificates of origin on American merchandise until after August 10. For an account of the tariff changes involving the requirement of certificates of origin, see ADVANCE SHEETS No. 782 (July 17, 1900).

Government Loan in British India.—Under date of June 6, 1900, Consul Fee, of Bombay, sends copy of an advertisement of a 3½ per cent loan which the government of India desires to issue, to the amount of 300 lakhs of rupees (about $10,000,000).

Agricultural Machines in Bulgaria.—Consul Hughes, of Coburg, under date of June 22, 1900, writes:

It is reported that the crops in Bulgaria promise to be exceptionally favorable. Bulgaria can, if effective work is done, become a very good market for American agricultural machines, as the peasants are beginning to appreciate more and more the advantages to be derived from the use of modern machinery.

Tariff Edict in Italy.—A note received by the Department from the Italian embassy, dated Washington, July 9, 1900, says that, according to a cablegram of even date from the Minister of the Interior at Rome, an edict just issued revokes the prohibition of the introduction of salted hides, hoofs, and shoe leather from places infected with the bubonic plague.

German Prizes for Lamps.—Vice-Consul-General Hanauer, of Frankfort, under date of June 14, 1900, reports that the Association of German Alcohol Manufacturers has offered prizes aggregating 12,000 marks ($2,856) for an improved glow-light lamp and a burner for cooking purposes. Models of competing lamps using alcohol must be sent in by December 1, 1900.

Lighting Cities in Haiti.—Minister Powell, under date of Port au Prince, July 4, 1900, informs the Department that the Haitian Government has concluded to furnish light to its cities, and in future not to grant concessions for this work to others. The Government will cancel all concessions and pay the holders for their plant and for such amounts as have been expended by them. The Government also promises to introduce a system of electric lights for the capitol in the early fall.

Business Licenses in Haiti.—Under date of June 6, 1900, Minister Powell writes from Port au Prince that, according to a new law, all persons in business, natives and foreigners, will hereafter pay $500 licenses per year for banking (an increase of $200) and $200 per year for importing in small shipments—that is, not receiving full cargoes on any one steamer.

Haitian Duties on Dominican Goods.—Minister Powell writes from Port au Prince, July 4, 1900, that the treaty between the Republics of Santo Domingo and Haiti having expired, Haiti now requires all Dominican products to pay on importation the duty imposed on articles from other countries.

Guatemalan Cattle Exports.—Under date of June 16, 1900, Minister Hunter sends from Guatemala copy of an executive decree of the 9th instant, increasing the tax upon each head of bovine cattle exported from the Republic to $70.

Cigarettes in Colombia.—Consul Shaw transmits from Barranquilla, May 26, 1900, translation of a decree of May 25, according to which the privilege of introducing, manufacturing, and selling cigarettes and materials for making the same in Colombia was not to take effect before the 13th of June.

Consular Reports Transmitted to Other Departments.—The following reports from consular officers (originals or copies) have been transmitted since the date of the last report to other Departments for publication or for other action thereon:

Consular officer reporting.	Date.	Subject.	Department to which referred.
S. W. Hanauer, Frankfort	June 26, 1900	Strikes	Department of Labor.
L. L. Stang, Saigon	May 24, 1900	Rice crop	Department of Agriculture.
M. H. Twitchell, Kingston	June 30, 1900	Crops	Do.
John McLean, Yokohama	June 11, 1900	Light-house notice	Hydrographic Office.
R. Guenther, Frankfort	June 22, 1900	Accidents in mines	Department of Labor.
Do	....do....	Failures in Germany	Do.
Samuel M. Taylor, Glasgow	July 17, 1900	Agriculture in Scotland	Department of Agriculture.
O. J. D. Hughes, Coburg	July 19, 1900	Agricultural conditions	Do.
Do	July 18, 1900	Care of lunatics	Marine Hospital.
Do	July 19, 1900	Laborers' dwellings	Department of Labor.

FOREIGN REPORTS AND PUBLICATIONS.

Trade in the Sahara Desert.—A recent edition of the Moniteur Officiel du Commerce, Paris, says:

A large desert lies between the southern boundary of Algeria and the Sûdan, which, under the common name Tuat, embraces three districts: Gurara, in the north; Tuat proper, south of Gurara; and Tidikelt, east and southeast of Tuat. The last-named district is scarcely inhabited, but exercises a kind of sovereignty over both of the others. The oasis Insala, the central point of Tidikelt, lately occupied by France, consequently involves control of all Tuat. The district embraces about 773 square miles; it has 203,000 inhabitants, 332 "ksour" (fortified villages or market places), and 7,000,000 palm trees. Although these "ksour" are situated in a land almost desert, producing only a few dates and plants, they are markets for the nomadic tribes. Insala especially is the market place for the Hoggar-Tauregs. Chiefly as the result of its geographical position, Tuat has developed a very considerable trade with the Sudan, particularly in European goods imported by way of Morocco or Tripoli. Two great caravans go yearly from Akabli, the most southern oasis of Tidikelt, to Timbuktu. The first caravan of the season starts early in April, reaches Timbuktu at the end of May, remains there during the summer months, and starts on the return journey the 1st of October, arriving at Akabli by the middle of November. The second caravan leaves Akabli early in October and returns in May. Thirty-five days is sufficient for the journey, but the caravans take a few days more for the necessary rests. The resting places are selected with regard to springs of water, shade, and fodder. The caravans take to the Sudan firearms, swords, tools, and hardware from Germany; cotton, cotton goods, and muslins from Great Britain; glassware from Italy; from France, lace, yarns, needles, scarfs, paper, soap, tobacco, knives, weapons, corals, perfumes, iron and copper wire, and medicines, besides dates and salt. In exchange, they bring from the Sudan ostrich feathers, ivory, tanned hides, gold dust, and baskets; they also bring slaves. Caravans have on an average 9,000 camels. The exports from the Sudan, apart from the slave trade, are valued at about $386,000.

In regard to the region south of Tunis, the Bulletin de la Société de Géographie Commerciale, Paris, 1900, has an article which is summarized below:

Djérid, properly speaking, comprises the region situated between the salt lakes of that name and the salt lake Rharsa, composed of the oases of El-Oudiane, El-Hamma, Tozeur, and Nefta, all remarkable for their great fertility. The population numbers some 30,000 inhabitants, mostly devoted to agriculture. The principal culture is the date palm, which suits the soil admirably. To encourage its cultivation, the Government has suppressed the export duties on dates. There are 635,000 trees, every part of which can be utilized. The wood is used for carpentering and to make beams and doors; the flexible ends of the young branches are planted on the walls of beaten earth, inclosing the oasis in a palisade; the young leaves are employed in basket work, in making hats, covers of plates, etc.; the sap

is utilized in making a drink much appreciated by the natives. The most important product, however, is the fruit, of which an average of 800 to 1,000 tons of one variety alone is annually exported, while the production of other kinds reaches 15,000 tons, a third of which is consumed in the country and the rest exported. Next to the date in importance comes the olive tree. Sousse, Sfax, and Djerba are surrounded by magnificent forests of olive trees, and the oasis of El-Oudiane has 25,000 trees, producing annually 13,200 gallons of oil. This oil formerly found a market in Souf and southern Algeria. At present, Sousse, Mehdia, Monastir, and Sfax have model oil manufactories, which equal the best-equipped manufactories of Provence, Italy, and Spain. More than 8,000 tons were exported in 1898. The oil is of irreproachable purity and extremely delicate in flavor; in fact, the greater part of it is put on the market as French oil. Besides the olive and date, peaches, apricots, pomegranates, bananas, oranges, lemons, and grapes flourish here, and the fruits are sent to the Algerian markets. An important commerce is also carried on in silk tissues and silk mixtures. The silk coverlets, the bornous, and the silk masques have acquired a certain renown.

The fact that trade was flourishing a century ago between Ghadames and Nefta shows how easy it would be to establish a commercial house at Nefta for the exchange of grains and manufactured articles for the wool, cattle, skins, ostrich plumes, and arms of the southern tribes. Already the creation of the port of Sfax and the railway from Sfax to Gafsa have been the starting point of a new era. The railway belongs to the Society of Phosphates of Gafsa. Its construction was one of the conditions of the grant; it is finished for 150 miles. The phosphate company and the railway have built five large bridges. More than 200,000 tons of phosphates have been extracted. The prolongation of the railway is already demanded. As it will exercise an important part in the commerce of the Kingdom, it is assured of considerable traffic, not only of merchandise, but of travelers.

Notes from Vladivostock.—The Recueil Consulaire, vol. 104, 1899, Brussels, has a report from which the following is taken:

The port of Vladivostock, most commodious and picturesque, is situated on the peninsula Mouravieff Amoursky, on a beautiful bay, called from its shape "Horn of Gold." This bay is sheltered from the winds by high mountains, and hundreds of ships can be received at a time in its deep waters. The location of the town is fine, the ground upon which it is built being terraced back upon the mountain sides, which adds to its apparent size. In reality, there are only a couple of thousand buildings, three-fourths of which are wood. Vladivostock is situated 2½° farther south than Venice, and only three-fourths of a degree north of Florence or Nice; yet its climate, like that of Vasa or Archangel, is subject to exremes of heat and cold. In summer, the heat is at times almost tropical, accompanied by moisture. The fogs and the southwest winds begin in May and last until the end of July. The winter, commencing in December, lasts until April or May. The air is then very dry, and the prevailing winds are from the northwest.

The environs of the town are cut in every direction by superb military roads joining the different forts and batteries. Besides the 20,000 military, the town has about 25,000 inhabitants, of whom 10,000 are Europeans and 15,000 Chinese, merchants and workmen. The Chinese population fluctuates, thousands of coolies coming for the season and returning to China via Chefoo at the end of autumn. The system of sewers, waterworks, street cleaning, and lighting is of the most primitive character. The town has two banks (the Government and the Russo-Chinese), two theaters (one of stone), two libraries, large military and public hospitals, four clubs, and five or six hotels.

Two powerful ice-breaking boats, belonging to the Government, maintain permanent communication between Vladivostock and the sea; so that one may say that navigation is open all the year. It is, however, limited in winter to boats of the voluntary fleet, one boat per month running. The greater part of eastern Siberia and the northwestern part of Manchuria will be for some years without railways, and Vladivostock will remain their outlet.

The value of the commerce of importation of Vladivostock is estimated at about $14,475,000. Grain, live animals, and tobacco are imported by land from Manchuria and Korea to the value of $772,000 annually. The yearly exports, which include manufactured articles, shoes, skins, and colonial products, amount to $1,544,000.

Thirty-one miles from Vladivostock and 9 miles from the railway of Oussouri is situated the coal mine of Nadeshdinskaja, about 6 square miles in extent. The coal is of good quality. The navy expects to use it. Nearer Vladivostock, only 2½ miles from the railway, are found beds of soft coal, nearly 8 square miles in extent. These mines contain different kinds of good coal, superior in quality to the Japanese coal. There have also been found deposits of iron, argentiferous lead, copper, and gold.

There are four other towns in this region—Nicolsk, Khabarovsk, Blagoveshensk, and the port of Nicolaevsk.

The little town of Nicolsk, situated about 62 miles from Vladivostock, on the line of the Oussouri Railway, will be the starting point for the Eastern Chinese Railway. It has more than 4,000 inhabitants and a very considerable commerce with Manchuria. Khabarovsk, 15,000 inhabitants, is the seat of government of the country. It is located at the terminus of the Oussouri Railway and at the junction of the Amur and Oussouri.

Commerce of Finland.—The Nachrichten für Handel und Industrie, Berlin, March 20, 1900, quotes from the Russian Finazherold the following statistics of Finnish trade in 1899:

Exports.

Articles.	1899.	1898.
Horses.....head...	1,032	1,272
Horned cattle.....do.....	3,518	3,574
Calves.....do.....	6,724	7,535
Wild fowl and poultry.....tons...	313	435
Meat and fat.....do.....	725	815
Butter.....do.....	9,879	12,380
Fish.....do.....	7,743	7,140
Oats and grain.....do.....	11,097	25,627
Rye.....do.....	1,381	2,043
Berries.....do.....	1,382	918
Lumber:		
Pine and fir, under 2 yards length—		
Planks.....cubic feet...	13,054,781	10,172,382
Laths.....do.....	29,912,807	27,182,516
Boards.....do.....	34,209,495	33,074,326
Round pine and fir, not under 2 yards (fir and pine rafters).....do.....	20,296,062	26,346,713
Firewood.....do.....	27,890,543	20,999,427
Wood and paper pulp.....tons...	45,371	41,403
Paper.....do.....	29,695	28,224
Tar.....gallons...	16,754,654	17,617,010
Bar iron.....tons...	11,061	12,306
Wrought iron.....do...	5,751	6,111

Imports.

Articles.		1899.	1898.
Salt herring	tons	2,857	5,793
Dried fish	do	546	1,038
Oats	do	11,108	6,780
Wheat	do	31	17
Barley	do	11,766	9,488
Maize	do	7,160	7,800
Rice	do	4,438	5,603
Rye	do	78,958	37,331
Wheaten flour	do	45,725	45,467
Rye flour	do	141,284	94,830
Malt	do	3,958	4,569
Buckwheat	do	1,345	1,211
Petroleum	do	17,031	17,497
Coal	do	250,041	164,432
Bar iron	do	20,620	21,168
Iron rods	do	14,264	15,183
Sheet iron	do	5,665	5,919
Raw cotton	do	5,857	5,588
Coffee	do	7,623	8,769
Tobacco:			
In leaf	do	2,804	3,057
In stalk	do	708	1,028
Kitchen salt	bushels	1,800,520	1,893,162
Sugar:			
Raw	tons	24,539	26,193
Refined	do	2,937	5,862
Brandy in casks	do	502	470
Wine in casks	do	1,345	1,476

Commercial Conditions in Spain—From the Bolletino degli Affari Esteri, Rome, January, 1900, the following is summarized:

Agricultural productions constitute the principal source of wealth in Spain. The year 1898 was a year of relatively good harvests, with an increased cultivation of grain; certain national industries also, particularly that of sugar, made great advances. The surplus of exports over imports in 1898 was enormous—some 129,200,000 pesetas. According to a French economist, this was due to the high rate of exchange during the Spanish-American war, making the purchase of foreign goods almost prohibitive, or at least reducing them to the strictly necessary, while native products were sold at higher prices.

The year 1897 may be said to close a series of years showing a perceptible expansion of Spanish commerce. Manufactures and native enterprises were aided by the protective policy of the Government. In 1897, the Spanish Kingdom maintained commercial relations with fifty-two foreign countries. In this list the Spanish colonies occupied the first place, both in imports and exports. Great Britain stood second, furnishing coal, coke, and manufactures of iron, steel, copper, bronze, and cotton and receiving mineral ores, fresh and dry fruits, and wines. France was third, both in imports and exports, receiving, it may be said, raw materials from Spain and returning manufactured articles. The United States stood fourth on the list of countries importing into Spain and eighth on the receiving list. Cotton, crude petroleum, food products, and grain were the most important factors of this trade. The statistics given for the year 1898 and the first ten months of 1899 are only provisional. A comparison, however, of the first ten months of 1899 with

corresponding periods of 1898 and 1897 shows that the commercial balance was favorable to Spain in 1897 and 1898, and unfavorable in 1899.

It is difficult to explain why this year should give unfavorable results. The Spanish Government has met the problem of developing the export trade by well-organized bureaus, such as the center of commercial information and the export junta, and by arrangements with navigation companies for the establishment of new channels for national commerce.

General Warehouses in Mexico.—The following is from the Board of Trade Journal, London, June 7, 1900:

The new law recently promulgated in Mexico authorizing the establishment of general warehouses which will receive and store goods, whether Mexican or foreign, and will issue deposit certificates, on the security of which money may be advanced, is said to be due to the initiative of the Central Bank of Mexico, certain German banking firms, and an American resident at Chihuahua. These "general warehouses" are not Government institutions, but private enterprises, which will be treated as credit establishments. They are of two kinds—some receive only national goods or goods which have passed through the custom-house on importation and others receive foreign goods the duty on which has not been paid, the only restriction being that if they are not taken out of the warehouse within a year the duties must be paid. An exhibition of samples will be attached to each of the general warehouses.

CONTENTS.

		Page.
LIST OF PUBLICATIONS		VII
I.—TRADE IN SOUTH AFRICA	*Stowe*	151
II.—SUGAR TRADE OF EGYPT IN 1899	*Murphy*	159
III.—GERMAN BEET-SUGAR INDUSTRY	*Murphy*	160
IV.—UTILIZATION OF SUGAR-BEET WASTE AS MANURE	*Murphy*	164
V.—GERMANY'S SUGAR EXPORTATION	*Murphy*	165
VI.—OCHER IN EUROPE (Belgium, 167—France, 168—Germany, 175—Netherlands, 176—United Kingdom, 177.)		167
VII.—FRENCH MARKET FOR LUMBER	*Covert*	178
VIII.—GREEK MARKET FOR LUMBER	*McGinley*	179
IX.—AMERICAN LUMBER IN GERMANY	*Harris*	180
X.—BERLIN EXHIBITION OF FIRE-SAVING APPARATUS	*White*	182
XI.—CHEMICAL INDUSTRY OF GERMANY	*Guenther*	186
XII.—SCARCITY OF CANNED MEATS IN GERMANY	*Pitcairn*	188
XIII.—AGRICULTURAL FAIR AT COBURG	*Hughes*	190
XIV.—OATMEAL IN GERMANY	*Pitcairn*	190
XV.—GERMAN IRON WORKS AT BRUCKHAUSEN	*Guenther*	192
XVI.—MANUAL TRAINING IN GERMANY	*Guenther*	192
XVII.—GERMAN ARMOR-PLATE MANUFACTURE	*Guenther*	193
XVIII.—MINING AND METALLURGICAL PRODUCTION OF GERMANY	*Guenther*	194
XIX.—THE STEEL PRODUCTION OF THE WORLD	*Monaghan*	195
XX.—RAILWAYS IN SPAIN	*Reed*	196
XXI.—REPORT OF FRENCH STEAMSHIP LINE	*Thackara*	199
XXII.—NOTABLE ECONOMIC CONDITIONS IN FRANCE	*Tourgée*	200
XXIII.—NEW FRENCH SPINNING MACHINE	*Atwell*	202
XXIV.—AIR SHIP IN SWITZERLAND	*DuBois*	204
XXV.—TEXTILE-INDUSTRY ENLARGEMENTS IN AUSTRIA	*Mahin*	205
XXVI.—ALLEGED "ARTIFICIAL COTTON"	*Mahin*	205
XXVII.—COTTON RAGS IN RUSSIA	*Heydecker*	206
XXVIII.—MANCHESTER EXPORTS TO THE UNITED STATES	*Grinnell*	208
XXIX.—HINTS TO NAIL EXPORTERS	*Schumann*	209
XXX.—ELECTRICITY IN BRITISH CITIES	*Halstead*	210
XXXI.—ELECTRIC UNDERGROUND RAILWAY IN LONDON	*Halstead*	211
XXXII.—AMERICAN SHOES IN GREAT BRITAIN	*Halstead*	214
XXXIII.—GROWTH OF THE ICE HABIT IN ENGLAND	*Halstead*	215

Page.

XXXIV.—Trade-Marks in Denmark.....*Ingersoll* 216

XXXV.—Poultry Raising in Belgium.....*Lincoln* 217

XXXVI.—Russian Business Methods.....*Guenther* 219

XXXVII.—Shooting Cannon at Clouds in France.....*Covert* 220

XXXVIII.—Olives and Olive Oil in France.....*Skinner* 221

XXXIX.—Motor Boats on the Dead Sea.....*Winter* 222

XL.—Street Roller and Petroleum Engines Wanted in Beirut, *Magelssen*..... 223

XLI.—Mines and Agricultural Implements in Asia Minor...*Davis* 223

XLII.—Railway Improvements in Formosa.....*Davidson* 224

XLIII.—Mackerel and Fertilizers in Japan.....*Lyon* 227

XLIV.—Foreigners in Shanghai.....*Goodnow* 228

XLV.—Mineral and Agricultural Resources of Siberia.....*Greener* 229

XLVI.—Mining in Alaska and the Klondike.....*McCook* 234

XLVII.—Industries of Sault Ste. Marie.....*Turner* 235

XLVIII.—Mexican-Chinese Treaty of Commerce.....*Clayton* 236

XLIX.—Railway Contract in Mexico.....*McCreery* 241

L.—Monopolies in the Department of Panama.....*Gudger* 243

LI.—Export Dues in Colombia.....*Shaw* 244

LII.—Imports and Exports of Puerto Cabello.....*Ellsworth* 244

LIII.—Venezuela Stamp Law.....*Loomis* 258

LIV.—Diamonds in British Guiana.....*Moulton* 261

LV.—Penny Savings Bank in Falkland Islands.....*Rowen* 262

LVI.—Argentine Neutrality Procedure.....*Jones* 263

LVII.—Crane Regulations at Newcastle..... } *Goding* 268

LVIII.—Commercial Methods in Australia..... } 272

LIX.—Showroom in Sydney, Australia.....*Bell* 273

LX.—Electric Fans and Soda-Water Fountains in England, *Halstead*..... 277

LXI.—Notes (Certificates of Origin in Turkey—Electrical Works in Germany—Electrical Power at Kiel—Alcohol Plow Locomobiles in Germany—German Delivery of Goods by Street Cars—German Life Insurance in 1899—Tulle Factories in Germany—American Lard in Germany—Paper from Turf—Gold and Platinum in Russia—Horsepower of Machinery at Paris expositions—British Electrical Experts at Paris—Quarantine in Norway—Flour Mills in Para—Brazilian Market for Porcelain and Glass—Proposed Tariff Increase in Brazil—Guatemalan Export Tax on Coffee—Washout on Guatemala Railway—Sanitary Conditions of Port Limon—Pearl Growing in Japan—Siamese Demand for Railway Materials and Fire-arms—Canadian Lobsters and Wood Pulp in France—Strike

Page.

in Belgian Glass Works—Salt Prices in Germany—Fruit Crop of Silesia—Consular Reports Transmitted to Other Departments) 279

LXII.—FOREIGN REPORTS AND PUBLICATIONS (Hankau-Pekin Railway—New Roads and Railways in Honduras—Beet Sugar in Spain—Agricultural Machinery in Turkey—Tinned Meats in China)..... 287

REPORTS BY COUNTRIES.

	Page.
AFRICA:	
Trade in South Africa	151
ALASKA AND THE KLONDIKE:	
Mining in	234
ARGENTINE REPUBLIC:	
Neutrality procedure	263
AUSTRALASIA:	
Crane regulations at Newcastle	268
Commercial methods in	272
Paper from turf	282
Showroom in Sydney	273
AUSTRIA:	
Alleged "artificial cotton"	205
Textile-industry enlargements in	205
BELGIUM:	
Ocher in	167
Poultry raising in	217
Strike in Belgian glass works	286
BRAZIL:	
Flour mills in Para	283
Market for porcelain and glass in	284
Proposed tariff increase in	284
BRITISH GUIANA:	
Diamonds in	261
CHINA:	
Foreigners in Shanghai	228
Hankau-Pekin Railway	287
Tinned meats in	289
COLOMBIA:	
Export dues in	244
Monopolies in the Department of Panama	243
COSTA RICA:	
Sanitary conditions at Port Limon	285
DENMARK:	
Trade-marks in	216
DOMINION OF CANADA:	
Canadian lobsters and wood pulp in France	286
Industries of Sault Ste. Marie	235
EGYPT:	
Sugar trade, 1899	159
FALKLAND ISLANDS:	
Penny savings bank in	262
FRANCE:	
Horsepower of machinery at Paris expositions	283
Market for lumber in	178
New spinning machine in	202

FRANCE—Continued. Page.
Notable economic conditions in ... 200
Ocher in ... 168
Olives and olive oil in ... 221
Report of French steamship line ... 199
Shooting cannon at clouds in ... 220
GERMANY:
Agricultural fair at Coburg ... 190
Alcohol plow locomobiles in ... 280
American lard in ... 282
American lumber in ... 180
Armor-plate manufacture in ... 193
Beet-sugar industry of ... 160
Berlin exhibition of fire-saving apparatus ... 182
Chemical industry of ... 188
Delivery of goods by street cars in ... 280
Electrical power in Kiel ... 280
Electrical works in ... 279
German life insurance in 1899 ... 281
Hints to nail exporters ... 209
Iron works at Bruckhausen ... 192
Manual training in ... 192
Mining and metallurgical production in ... 194
Motor boats on the Dead Sea ... 222
Oatmeal in ... 190
Ocher in ... 175
Salt prices in ... 288
Scarcity of canned beef in ... 188
Sugar exports of ... 165
Tulle factories in ... 281
Utilization of sugar-beet waste as manure ... 164
GREECE:
Market for lumber in ... 179
GUATEMALA:
Export tax on coffee ... 284
Railway washout ... 285
HONDURAS:
New roads and railways in ... 287
JAPAN:
Mackerel and fertilizers in ... 227
Pearl growing in ... 285
Railway implements in Formosa ... 224
MEXICO:
Mexican-Chinese treaty of commerce ... 236
Railway contract in ... 241
NETHERLANDS:
Ocher in ... 176
NORWAY:
Quarantine in ... 283
RUSSIA:
Business methods in ... 219
Cotton rags in ... 206
Gold and platinum in ... 282
Mineral and agricultural resources of Siberia ... 229

	Page.
SIAM:	
Demand for railway materials and firearms in	285
SILESIA:	
Fruit crop in	286
SPAIN:	
Beet sugar in	288
Railways in	196
SWITZERLAND:	
Air ship in	204
TURKEY:	
Agricultural machinery in	288
Certificates of origin in	279
TURKEY IN ASIA:	
Mines and agricultural implements in Asia Minor	223
Steel roller and petroleum engines wanted in Beirut	203
UNITED KINGDOM:	
American shoes in	214
British electrical experts at Paris	283
Electric fans and soda-water fountains in England	277
Electricity in British cities	210
Electric underground railway in London	211
Growth of ice habit in	215
Manchester exports to the United States	208
Ocher in	177
VENEZUELA:	
Imports and exports of Puerto Cabello	244
Stamp law	258
WORLD:	
Steel production of	195

Full directions for binding the Consular Reports are given in No. 131, page 663.

PUBLICATIONS OF THE BUREAU OF FOREIGN COMMERCE.*

The publications of the Bureau of Foreign Commerce, Department of State, are:

I.—COMMERCIAL RELATIONS, being the annual reports of consular officers on the commerce, industries, navigation, etc., of their districts.

II.—CONSULAR REPORTS, issued monthly, and containing miscellaneous reports from diplomatic and consular officers.

III.—ADVANCE SHEETS, CONSULAR REPORTS, issued daily, except Sundays and legal holidays, for the convenience of the newspaper press, commercial and manufacturing organizations, etc.

IV.—EXPORTS DECLARED FOR THE UNITED STATES, issued quarterly, and containing the declared values of exports from the various consular districts to the United States for the preceding three months.

V.—SPECIAL CONSULAR REPORTS, containing series of reports from consular officers on particular subjects, made in pursuance to instructions from the Department.

Following are the special publications issued by the Bureau prior to 1890:

Labor in Europe, 1878, one volume; Labor in Foreign Countries, 1884, three volumes; Commerce of the World and the Share of the United States Therein, 1879; Commerce of the World and the Share of the United States Therein, 1880–81; Declared Exports for the United States, First and Second Quarters, 1883; Declared Exports for the United States, Third and Fourth Quarters, 1883; Cholera in Europe in 1884, 1885; Trade Guilds of Europe, 1885; The Licorice Plant, 1885; Forestry in Europe, 1887; Emigration and Immigration, 1885–86 (a portion of this work was published as CONSULAR REPORTS No. 76, for the month of April, 1887); Rice Pounding in Europe, 1887; Sugar of Milk, 1887; Wool Scouring in Belgium, 1887; Cattle and Dairy Farming in Foreign Countries, 1888 (issued first in one volume, afterwards in two volumes); Technical Education in Europe, 1888; Tariffs of Central America and the British West Indies, 1890.

The editions of all these publications except Tariffs in Central America, etc., are exhausted and the Department is, therefore, unable to supply copies.

In 1890, the Department decided to publish reports on special subjects in separate form, to be entitled SPECIAL CONSULAR REPORTS. There are now the following SPECIAL CONSULAR REPORTS:

Vol. 1 (1890).—Cotton Textiles in Foreign Countries, Files in Spanish America, Carpet Manufacture in Foreign Countries, Malt and Beer in Spanish America, and Fruit Culture in Foreign Countries.

Vol. 2 (1890 and 1891).—Refrigerators and Food Preservation in Foreign Countries, European Emigration, Olive Culture in the Alpes Maritimes, and Beet-Sugar Industry and Flax Cultivation in Foreign Countries.

Vol 3 (1891).—Streets and Highways in Foreign Countries. (New edition, 1897.)

Vol. 4 (1891).—Port Regulations in Foreign Countries.

Vol. 5 (1891).—Canals and Irrigation in Foreign Countries. (New edition, 1898.)

Vol. 6 (1891 and 1892).—Coal and Coal Consumption in Spanish America, Gas in Foreign Countries, and India Rubber.

Vol. 7 (1892).—The Slave Trade in Foreign Countries and Tariffs of Foreign Countries.

Vol. 8 (1892).—Fire and Building Regulations in Foreign Countries.

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* Formerly Bureau of Statistics. Name changed to Bureau of Foreign Commerce by order of the Secretary of State, July 1, 1897.

Vol. 9 (1892 and 1893).—Australian Sheep and Wool and Vagrancy and Public Charities in Foreign Countries.

Vol. 10 (1894).—Lead and Zinc Mining in Foreign Countries and Extension of Markets for American Flour. (New edition, 1897.)

Vol. 11 (1894).—American Lumber in Foreign Markets. (New edition, 1897.)

Vol. 12 (1895).—Highways of Commerce. (New edition, 1899.)

Vol. 13 (1896 and 1897).—Money and Prices in Foreign Countries.

Vol. 14 (1898).—The Drug Trade in Foreign Countries.

Vol. 15 (1898).—Part I. Soap Trade in Foreign Countries; Screws, Nuts, and Bolts in Foreign Countries; Argols in Europe, Rabbits and Rabbit Furs in Europe, and Cultivation of Ramie in Foreign Countries. Part II. Sericulture and Silk Reeling and Cultivation of the English Walnut.

Vol. 16 (1899).—Tariffs of Foreign Countries. Part I. Europe. Part II. America. Part III. Asia, Africa, Australasia, and Polynesia.

Vol. 17 (1899).—Disposal of Sewage and Garbage in Foreign Countries; Foreign Trade in Coal Tar and By-Products.

Vol. 18 (1900).—Merchant Marine of Foreign Countries.

Vol. 19 (1900).—Paper in Foreign Countries; Uses of Wood Pulp.

Vol. 20 (1900).—Part I. Book Cloth in Foreign Countries, Market for Ready-Made Clothing in Latin America, Foreign Imports of American Tobacco, and Cigar and Cigarette Industry in Latin America. Part II. School Gardens in Europe. Part III. The Stave Trade in Foreign Countries.

Of these SPECIAL CONSULAR REPORTS, Australian Sheep and Wool, Cotton Textiles in Foreign Countries; Disposal of Sewage, etc.; Files in Spanish America, Fire and Building Regulations, Gas in Foreign Countries, India Rubber, Lead and Zinc Mining, Malt and Beer in Spanish America, Port Regulations, Refrigerators and Food Preservation, Soap, etc.; Sericulture, etc.; Vagrancy, etc., are exhausted, and no copies can be supplied by the Department.

There was also published, in 1899, Proclamations and Decrees during the War with Spain, comprising neutrality circulars issued by foreign countries, proclamations by the President, orders of the War and Navy Departments, and war decrees of Spain.

Of the monthly CONSULAR REPORTS, many numbers are exhausted or so reduced that the Department is unable to accede to requests for copies. Of the publications of the Bureau available for distribution, copies are mailed to applicants without charge. In view of the scarcity of certain numbers, the Bureau will be grateful for the return of any copies of the monthly or special reports which recipients do not care to retain. Upon notification of willingness to return such copies, the Department will fo ward franking labels to be used in lieu of postage in the United States, Canada, the Hawaiian Islands, and Mexico.

Persons receiving CONSULAR REPORTS regularly, who change their addresses, should give the old as well as the new address in notifying the Bureau of the fact.

In order to prevent confusion with other Department bureaus, all communications relating to consular reports should be carefully addressed, "Chief, Bureau of Foreign Commerce, Department of State, Washington, U. S. A."

VALUES OF FOREIGN COINS AND CURRENCIES.

The following statements show the valuation of foreign coins, as given by the Director of the United States Mint and published by the Secretary of the Treasury, in compliance with the first section of the act of March 3, 1873, viz: "That the value of foreign coins, as expressed in the money of account of the United States, shall be that of the pure metal of such coin of standard value," and that "the value of the standard coins in circulation of the various nations of the world shall be estimated annually by the Director of the Mint, and be proclaimed on the 1st day of January by the Secretary of the Treasury."

In compliance with the foregoing provisions of law, annual statements were issued by the Treasury Department, beginning with that issued on January 1, 1874, and ending with that issued on January 1, 1890. Since that date, in compliance with the act of October 1, 1890, these valuation statements have been issued quarterly, beginning with the statement issued on January 1, 1891.

The fact that the market exchange value of foreign coins differs in many instances from that given by the United States Treasury has been repeatedly called to the attention of the Bureau of Foreign Commerce. An explanation of the basis of the quarterly valuations was asked from the United States Director of the Mint, and under date of February 7, 1898, Mr. R. E. Preston makes the following statement:

"When a country has the single gold standard, the value of its standard coins is estimated to be that of the number of grains fine of gold in them, 480 grains being reckoned equivalent to $20.67 in United States gold, and a smaller number of grains in proportion. When a country has the double standard, but keeps its full legal-tender silver coins at par with gold, the coins of both gold and silver are calculated on the basis of the gold value.

"The value of the standard coins of countries with the single silver standard is calculated to be that of the average market value of the pure metal they contained during the three months preceding the date of the proclamation of their value in United States gold by the Secretary of the Treasury. The value of the gold coins of silver-standard countries is calculated at that of the pure gold they contain, just as if they had the single gold standard.

"These valuations are used in estimating the values of all foreign merchandise exported to the United States. The value of the Indian rupee, although calculated according to law at the value of the pure metal contained therein, has a commercial value above the value of the silver bullion; consequently the value for customs purposes is determined in each case by the consular certificates attached to the invoice of exports from that country to the United States."

The following statements, running from January 1, 1874, to July 1, 1900, have been prepared to assist in computing the values in American money of the trade, prices, values, wages, etc., of and in foreign countries, as given in consular and other reports. The series of years are given so that computations may be made for each year in the proper money values of such year. In hurried computations, the reductions of foreign currencies into American currency, no matter for how many years, are too often made on the bases of latest valuations. When it is taken into account

that the ruble of Russia, for instance, fluctuated from 77.17 cents in 1874 to 37.4 cents in April, 1897, such computations are wholly misleading. All computations of values, trade, wages, prices, etc., of and in the "fluctuating-currency countries" should be made in the values of their currencies in each year up to and including 1890, and in the quarterly valuations thereafter.

To meet typographical requirements, the quotations for the years 1876, 1877, 1879, 1881, 1882, and 1891–95 are omitted, these years being selected as showing the least fluctuations when compared with years immediately preceding and following.

To save unnecessary repetition, the estimates of valuations are divided into three classes, viz: (A) countries with fixed currencies, (B) countries with fluctuating currencies, and (C) quarterly valuations of fluctuating currencies.

A.—*Countries with fixed currencies.*

The following official (United States Treasury) valuations of foreign coins do not include "rates of exchange."

Countries.	Standard.	Monetary unit.	Value in U.S. gold.	Coins.
Argentine Republic*.	Gold and silver..	Peso.....	$0.96,5	Gold—Argentine ($4.82,4) and ½ Argentine; silver—peso and divisions.
Austria-Hungary†.....	Gold	Crown.....	.20,3	Gold—20 crowns ($4.05,2) and 10 crowns.
Belgium	Gold and silver..	Franc.....	.19,3	Gold—10 and 20 franc pieces; silver—5 francs.
Brazil.....	Gold	Milreis.....	.54,6	Gold—5, 10, and 20 milreis; silver—½, 1, and 2 milreis.
British North America (except Newfoundland).	.....do	Dollar.....	1.00	
British Honduras.....	.....do	.....do	1.00	
Chile.....	.....do	Peso.....	.36,5	Gold—escudo ($1.25), doubloon ($3.65), and condor ($7.30); silver—peso and divisions.
Costa Rica.....	.....do	Colon.....	.46,5	Gold—2, 5, 10, and 20 colons; silver—5, 10, 25, and 50 centisimos.
Cuba	Gold and silver..	.....do	.92,6	Gold—doubloon ($5.01,7); silver—peso (60 cents).
Denmark	Gold	Crown.....	.26,8	Gold—10 and 20 crowns.
Egypt.....	.....do	Pound (100 piasters).	4.94,3	Gold—10, 20, 50, and 100 piasters; silver—1, 2, 10, and 20 piasters.
Finland.....	.....do	Mark.....	.19,3	Gold—10 and 20 marks ($1.93 and $3.85,9).
France	Gold and silver..	Franc.....	.19,3	Gold—5, 10, 20, 50, and 100 francs; silver—5 francs.
Germany	Gold	Mark.....	.23,8	Gold—5, 10, and 20 marks.
Great Britain.....	.....do	Pound sterling...	4.86,6½	Gold—sovereign (pound sterling) and half sovereign.
Greece.....	Gold and silver..	Drachma.....	.19,3	Gold—5, 10, 20, 50, and 100 drachmas; silver—5 drachmas.
Haiti	.....do	Gourde.....	.96,5	Silver—gourde.
Italy.....	.....do	Lira	.19,3	Gold—5, 10, 20, 50, and 100 lire; silver—5 lire.
Japan‡.....	Gold.....	Yen.....	.49,8	Gold—1, 2, 5, 10, and 20 yen.
Liberia	.....do	Dollar.....	1.00	
Netherlands§.....	Gold and silver..	Florin	.40,2	Gold—10 florins; silver—½, 1, and 2½ florins.
Newfoundland	Gold	Dollar.....	1.01,4	Gold—$2 ($2.02,7).
Portugal.....	.....do	Milreis.....	1.08	Gold—1, 2, 5, and 10 milreis.
Russia ‖.....	.....do	Ruble.....	.51,5	Gold—imperial ($7.718) and ½ imperial ($3.80); silver—¼, ½, and 1 ruble.
Spain.....	Gold and silver..	Peseta.....	.19,3	Gold—25 pesetas; silver—5 pesetas.
Sweden and Norway.	Gold	Crown.....	.26,8	Gold—10 and 20 crowns.
Switzerland	Gold and silver..	Franc.....	.19,3	Gold—5, 10, 20, 50, and 100 francs; silver—5 francs.
Turkey	Gold	Piaster.....	.04,4	Gold—25, 50, 100, 200, and 500 piasters.
Uruguay	Gold	Peso.....	1.03,4	Gold—peso: silver—peso and divisions.
Venezuela.....	Gold and silver..	Bolivar.....	.19,3	Gold—5, 10, 20, 50, and 100 bolivars; silver—5 bolivars.

* In 1874 and 1875, the gold standard prevailed.

† The gold standard was adopted October 1, 1892. (See CONSULAR REPORTS No. 147, p. 623.) Values are still, however, frequently expressed in the florin or gulden, which is worth 2 crowns or 40.6 cents.

‡ Gold standard adopted October 1, 1897. (See CONSULAR REPORTS No. 201, p. 259.)

§ See note to table of fluctuating currencies.

‖ For an account of the adoption of the gold standard, see Review of the World's Commerce, 1896-97, p. 254.

B.—*Countries with fluctuating currencies, 1874–1890.*

Countries.	Standard.	Monetary unit.	Value in terms of the United States gold dollar on January 1—					
			1874.	1875.	1878.	1880.	1883.	1884.
Austria-Hungary*.	Silver	Florin	$0.47,6	$0.45,3	$0.45,3	$0.41,3	$0.40,1	$0.39,8
Bolivia	do	Dollar until 1890; boliviano thereafter.	.96,5	.96,5	.96,5	.83,6	.81,2	.80,6
Central America	do	Peso	.96,5	.91,8	.91,8	.83,6	.....	.....
China	Silver	Haikwan tael	1.61	1.61	.....	.....	.....	.....
Colombia	do	Peso	.96,5	.96,5	.96,5	.83,6	.81,2	.80,6
Ecuador	do	do	.96,5	.91,8	.91,8	.83,6	.81,2	.80,6
Egypt†	Gold	Pound (100 piasters).	.....	.....	4.97,4	4.97,4	4.90	4.90
India	Silver	Rupee	.45,8	.43,6	.43,6	.39,7	.38,6	.38,3
Japan	Gold	Yen	.99,7	.99,7	.99,7	.99,7	.....	.....
	Silver		.....	.....	.....	.....	.87,6	.86,9
Mexico	do	Dollar	1.04,7½	.99,8	.99,8	.90,9	.88,2	.87,5
Netherlands‡	Gold and Silver.	Florin	.40,5	.38,5	.38,5	.40,2	.....	.....
Peru	Silver	Sol	.92,5	.91,8	.91,8	.83,6	.81,2	.80,6
Russia	do	Ruble	.77,17	.73,4	.73,4	.66,9	.65	.64,5
Tripoli	do	Mahbub of 20 piasters.	.87,09	.82,9	.82,9	.74,8	.73,3	.72,7

Countries.	Standard.	Monetary unit.	Value in terms of the United States gold dollar on January 1—					
			1885.	1886.	1887.	1888.	1889.	1890.
Austria-Hungary*.	Silver	Florin	$0.39,3	$0.37,1	$0.35,9	$0.34,5	$0.33,6	$0.42
Bolivia	do	Dollar until 1880; boliviano thereafter.	.79,5	.75,1	.72,7	.69,9	.68	.85
Central America	do	Peso	.....	.....	.....	.69,9	.68	.85
Colombia	do	do	.79,5	.75,1	.72,7	.69,9	.68	.85
Ecuador	do	do	.79,5	.75,1	.72,7	.69,9	.68	.85
Egypt†	Gold	Pound (100 piasters).	4.90	4.90	4.94,3	4.94,3	4.94,3	4.94,3
India	Silver	Rupee	.37,8	.35,7	.34,6	.32,2	.32,3	.40,4
Japan	Gold	Yen	.....	.....	.99,7	.99,7	.99,7	.99,7
	Silver		.85,8	.81	.78,4	.75,3	.73,4	.91,7
Mexico	do	Dollar	.86,4	.81,6	.79	.75,9	.73,9	.92,3
Peru	Silver	Sol	.79,5	.75,1	.72,7	.69,9	.68	.85
Russia	do	Ruble	.63,6	.60,1	.58,2	.55,9	.54,4	.68
Tripoli	do	Mahbub of 20 piasters.	.71,7	.67,7	.65,6	.63	.61,4	.76,7

* The silver standard prevailed in Austria-Hungary up to 1892. The law of August 2 of that year (see CONSULAR REPORTS No. 147, p. 623) established the gold standard.

† The Egyptian pound became fixed in value at $4.94,3 in 1887.

‡ The Netherlands florin fluctuated up to the year 1880, when it became fixed at 40.2 cents.

C.—*Quarterly valuations of fluctuating currencies.*

Countries.	Monetary unit.	1897.				1898.			
		Jan. 1.	April 1.	July 1.	Oct. 1.	Jan. 1.	April 1.	July 1.	Oct. 1.
Bolivia	Silver boliviano.	$0.47,4	$0.46,8	$0.44,3	$0.41,2	$0.42,4	$0.40,9	$0.41,8	$0.43,6
Central America.	Silver peso	.47,4	.46,5	.44,3	.41,2	.41,4	.40,9	.41,8	.43,6
China	Amoy tael	.76,7	.75,7	.71,7	.66,4	.68,5	.66,2	.67,6	.70,6
	Canton tael	.76,5	.75,5	.71,5	.66,4	.68,3	.66	.67,4	.70,4
	Chefoo tael	.73,3	.72,4	.68,6	.63,7	.65,5	.63,3	.64,6	.67,5
	Chinkiang tael	.74,9	.73,9	.70	.65,1	.66,9	.64,6	.66	.69
	Fuchau tael	.70,9	.70	.66,3	.61,6	.63,4	.61,2	.62,5	.65,3
	Haikwan tael	.78	.77	.73,1	.67,8	.69,7	.67,3	.68,8	.71,8
	Hankau tael	.71,7	.70,8	.67,1	.62,3	.64,1	.61,9	.63,2	.66
	Ningpo tael	.73,7	.72,8	.68,9	.64	.64,3	.63	.65	.67,9
	Niuchwang tael.	.71,9	.71	.67,2	.62,5	.65,9	.62	.63,4	.66,2
	Shanghai tael	.70	.69,1	.65,5	.60,8	.62,6	.60,4	.61,7	.64,5
	Swatow tael	.70,8	.69,9	.66,2	.61,5	.63,3	.61,1	.62,4	.65,2
	Takao tael	.77,2	.76,2	.72,2	.67	.66	.66,6	.68	.71
	Tientsin tael	.74,3	.73,4	.69,5	.64,6	.66,4	.64,1	.65,5	.68,4
Colombia	Silver peso	.47,4	.46,8	.44,3	.41,2	.42,4	.40,9	.41,8	.43,6
Ecuador	do	.47,4	.46,8	.44,3	.41,2	.42,4	.40,9	.41,8	.43,6
India*	Silver rupee	.22,5	.22,2	.21,1	.19,6	.20,1	.19,1	.19,9	.20,7
Japan	Silver yen	.51,1	.50,5						
Mexico	Silver dollar	.51,5	.50,8	.48,2	.44,6	.46	.44,4	.45,4	.47,4
Persia	Silver kran	.08,7	.08,6	.08,2	.07,6	.07,8	.07,5	.07,7	.08
Peru	Silver sol	.47,4	.46,8	.44,3	.41,2	.42,4	.40,9	.41,8	.43,6
Russia	Silver ruble	.37,9	.37,4						

Countries.	Monetary unit.	1899.				1900.		
		Jan. 1.	April 1.	July 1.	Oct. 1.	Jan. 1.	April 1.	July 1.
Bolivia	Silver boliviano.	$0.43,9	$0.43,4	$0.44,3	$0.43,6	$0.42,7	$0.43,6	$0.43,8
Central America	Silver peso	.43,9	.43,4	.44,3	.43,6	.42,7	.43,6	.43,8
China	Amoy tael	.71	.70,2	.71,6	.70,5	.69,1	.70,5	.70,9
	Canton tael	.70,8	.70	.71,4	.70,3	.68,9	.70,3	.70,7
	Chefoo tael	.67,9	.67,2	.68,4	.67,4	.66,1	.67,4	.67,8
	Chinkiang tael	.69,3	.68,6	.69,9	.68,9	.67,5	.68,8	.69,3
	Fuchau tael	.65,6	.65	.66,2	.65,2	.64	.65,2	.65,6
	Haikwan tael	.72,2	.71,4	.72,8	.71,8	.70,3	.71,7	.72,1
	Hankau tael	.66,4	.65,7	.67	.66	.64,7	.65,9	.66,3
	Ningpo tael	.68,2	.67,5	.68,8	.67,8	.66,5	.67,7	.68,2
	Niuchwang tael.	.66,5	.65,9	.67,1	.66,1	.64,8	.66,1	.66,5
	Shanghai tael	.64,8	.64,1	.65,4	.64,4	.63,1	.64,4	.64,8
	Swatow tael	.65,5	.64,9	.66,1	.65,1	.63,9	.65,1	.65,5
	Takao tael	.71,4	.70,7	.72	.71	.69,6	.70,9	.71,4
	Tientsin tael	.68,8	.68	.69,4	.68,3	.67	.68,3	.68,7
Colombia	Silver peso	.43,9	.43,4	.44,3	.43,6	.42,7	.43,6	.43,8
Ecuador	do	.43,9	.43,4	.44,3	.43,6	.42,7	.43,6	.43,8
India*	Silver rupee	.20,8	.20,6	.21	.20,7	.20,3	.20,7	.20,8
Mexico	Silver dollar	.47,7	.47,2	.48,1	.47,4	.46,4	.47,3	.47,6
Persia	Silver kran	.08,1	.08	.08,2	.08	.07,9	.08	.08,1
Peru	Silver sol	.43,9	.43,4	.44,3	.43,6	.42,7	.43,6	.43,8

*The commercial value of the rupee to be determined by consular certificate.

FOREIGN WEIGHTS AND MEASURES.

The following table embraces only such weights and measures as are given from time to time in CONSULAR REPORTS and in Commercial Relations:

Foreign weights and measures, with American equivalents.

Denominations.	Where used.	American equivalents.
Almude	Portugal	4.422 gallons.
Ardeb	Egypt	7.6907 bushels.
Are	Metric	0.02471 acre.
Arobe	Paraguay	25 pounds.
Arratel or libra	Portugal	1.011 pounds.
Arroba (dry)	Argentine Republic	25.3175 pounds.
Do	Brazil	32.38 pounds.
Do	Cuba	25.3664 pounds.
Do	Portugal	32.38 pounds.
Do	Spain	25.36 pounds.
Do	Venezuela	25.4024 pounds
Arroba (liquid)	Cuba, Spain, and Venezuela	4.263 gallons.
Arshine	Russia	28 inches.
Arshine (square)	do	5.44 square feet.
Artel	Morocco	1.12 pounds.
Baril	Argentine Republic and Mexico	20.0787 gallons.
Barrel	Malta (customs)	11.4 gallons.
Do	Spain (raisins)	100 pounds.
Berkovets	Russia	361.12 pounds.
Bongkal	India	832 grains.
Bouw	Sumatra	7,096.5 square meters.
Bu	Japan	0.1 inch.
Butt (wine)	Spain	140 gallons.
Caffiso	Malta	5.4 gallons.
Candy	India (Bombay)	529 pounds.
Do	India (Madras)	500 pounds.
Cantar	Morocco	113 pounds.
Do	Syria (Damascus)	575 pounds.
Do	Turkey	124.7036 pounds.
Cantaro (cantar)	Malta	175 pounds.
Carga	Mexico and Salvador	300 pounds.
Catty	China	1.333⅓ (1⅓) pounds.
Do*	Japan	1.31 pounds.
Do	Java, Siam, and Malacca	1.35 pounds.
Do	Sumatra	2.12 pounds.
Centaro	Central America	4.2631 gallons.
Centner	Bremen and Brunswick	117.5 pounds.
Do	Darmstadt	110.24 pounds.
Do	Denmark and Norway	110.11 pounds.
Do	Nuremberg	112.43 pounds.
Do	Prussia	113.44 pounds.
Do	Sweden	93.7 pounds.
Do	Vienna	123.5 pounds.
Do	Zollverein	110.24 pounds.
Do	Double or metric	220.46 pounds.
Chih	China	14 inches.

*More frequently called "kin." Among merchants in the treaty ports it equals 1.33⅓ pounds avoirdupois.

Foreign weights and measures, with American equivalents—Continued.

Denominations.	Where used.	American equivalents.
Coyan	Sarawak	3,098 pounds.
Do	Siam (Koyan)	2,667 pounds.
Cuadra	Argentine Republic	4.2 acres.
Do	Paraguay	78.9 yards.
Do	Paraguay (square)	8.077 square feet.
Do	Uruguay	Nearly 2 acres.
Cubic meter	Metric	35.3 cubic feet.
Cwt (hundredweight)	British	112 pounds.
Dessiatine	Russia	2.6997 acres.
Do	Spain	1.599 bushels.
Drachme	Greece	Half ounce.
Egyptian weights and measures	(*See* CONSULAR REPORTS No. 144.)	
Fanega (dry)	Central America	1.5745 bushels.
Do	Chile	2.575 bushels.
Do	Cuba	1.599 bushels.
Do	Mexico	1.54728 bushels.
Do	Morocco	Strike fanega, 70 lbs.; full fanega, 118 lbs.
Do	Uruguay (double)	7.776 bushels.
Do	Uruguay (single)	3.888 bushels.
Do	Venezuela	1.599 bushels.
Fanega (liquid)	Spain	16 gallons.
Feddan	Egypt	1.03 acres.
Frail (raisins)	Spain	50 pounds.
Frasco	Argentine Republic	2.5096 quarts.
Do	Mexico	2.5 quarts.
Frasila	Zanzibar	35 pounds.
Fuder	Luxemburg	264.17 gallons.
Garnice	Russian Poland	0.88 gallon.
Gram	Metric	15.432 grains.
Hectare	do	2.471 acres.
Hectoliter:		
Dry	do	2.838 bushels.
Liquid	do	26.417 gallons.
Joch	Austria-Hungary	1.422 acres.
Ken	Japan	6 feet.
Kilogram (kilo)	Metric	2.2046 pounds.
Kilometer	do	0.621376 mile.
Klafter	Russia	216 cubic feet.
Koku	Japan	4.9629 bushels.
Korree	Russia	3.5 bushels.
Kwan	Japan	8.28 pounds.
Last	Belgium and Holland	85.134 bushels.
Do	England (dry malt)	82.52 bushels.
Do	Germany	2 metric tons (4,480 pounds).
Do	Prussia	112.29 bushels.
Do	Russian Poland	113⅜ bushels.
Do	Spain (salt)	4,760 pounds.
League (land)	Paraguay	4,633 acres.
Li	China	2,115 feet.
Libra (pound)	Castilian	7,100 grains (troy).
Do	Argentine Republic	1.0127 pounds.
Do	Central America	1.043 pounds.
Do	Chile	1.014 pounds.
Do	Cuba	1.0161 pounds.
Do	Mexico	1.01465 pounds.
Do	Peru	1.0143 pounds.
Do	Portugal	1.011 pounds.
Do	Uruguay	1.0143 pounds.
Do	Venezuela	1.0161 pounds.
Liter	Metric	1.0567 quarts.

Foreign weights and measures, with American equivalents—Continued.

Denominations.	Where used.	American equivalents.
Livre (pound)	Greece	1.1 pounds.
Do	Guiana	1.0791 pounds.
Load	England (timber)	Square, 50 cubic feet; unhewn, 40 cubic feet; inch planks, 600 superficial feet.
Manzana	Costa Rica	1⅘ acres.
Do	Nicaragua and Salvador	1.727 acres.
Marc	Bolivia	0.507 pound.
Maund	India	82⅔ pounds.
Meter	Metric	39.37 inches.
Mil	Denmark	4.68 miles.
Do	Denmark (geographical)	4.61 miles.
Milla	Nicaragua and Honduras	1.1493 miles.
Morgen	Prussia	0.63 acre.
Oke	Egypt	2.7225 pounds.
Do	Greece	2.84 pounds.
Do	Hungary	3.0817 pounds.
Do	Turkey	2.85418 pounds.
Do	Hungary and Wallachia	2.5 pints.
Pic	Egypt	21¼ inches.
Picul	Borneo and Celebes	135.64 pounds.
Do	China, Japan, and Sumatra	133⅓ pounds.
Do	Java	135.1 pounds.
Do	Philippine Islands (hemp)	139.45 pounds.
Do	Philippine Islands (sugar)	140 pounds.
Pie	Argentine Republic	0.9478 foot.
Do	Castile	0.91407 foot.
Pik	Turkey	27.9 inches.
Pood	Russia	36.112 pounds.
Pund (pound)	Denmark and Sweden	1.102 pounds.
Quarter	Great Britain	8.252 bushels.
Do	London (coal)	36 bushels.
Quintal	Argentine Republic	101.42 pounds.
Do	Brazil	130.06 pounds.
Do	Castile, Chile, Mexico, and Peru	101.61 pounds.
Do	Greece	123.2 pounds.
Do	Newfoundland (fish)	112 pounds.
Do	Paraguay	100 pounds.
Do	Syria	125 pounds.
Do	Metric	220.46 pounds.
Rottle	Palestine	6 pounds.
Do	Syria	5¾ pounds.
Sagen	Russia	7 feet.
Salm	Malta	490 pounds.
Se	Japan	0.02451 acres.
Seer	India	1 pound 13 ounces.
Shaku	Japan	11.9305 inches.
Sho	do	1.6 quarts.
Standard (St. Petersburg)	Lumber measure	165 cubic feet.
Stone	British	14 pounds.
Suerte	Uruguay	2,700 cuadras (see cuadra).
Sun	Japan	1.193 inches.
Tael	Cochin China	590.75 grains (troy).
Tan	Japan	0.25 acre.
To	do	2 pecks.
Ton	Space measure	40 cubic feet.
Tonde (cereals)	Denmark	3.94783 bushels.
Tondeland	do	1.36 acres.
Tsubo	Japan	6 feet square.
Tsun	China	1.41 inches.

Foreign weights and measures, with American equivalents—Continued.

Denominations.	Where used.	American equivalents.
Tunna	Sweden	4.5 bushels.
Tunnland	do	1.22 acres.
Vara	Argentine Republic	34.1208 inches.
Do	Castile	0.914117 yard.
Do	Central America	32.87 inches.
Do	Chile and Peru	33.367 inches.
Do	Cuba	33.384 inches.
Do	Curaçao	33.375 inches.
Do	Mexico	33 inches.
Do	Paraguay	34 inches.
Do	Venezuela	33.384 inches.
Vedro	Russia	2.707 gallons.
Vergees	Isle of Jersey	71.1 square rods.
Verst	Russia	0.663 mile.
Vlocka	Russian Poland	41.98 acres.

METRIC WEIGHTS AND MEASURES.

Metric weights.

Milligram ($\frac{1}{1000}$ gram) equals 0.0154 grain.
Centigram ($\frac{1}{100}$ gram) equals 0.1543 grain.
Decigram ($\frac{1}{10}$ gram) equals 1.5432 grains.
Gram equals 15.432 grains.
Decagram (10 grams) equals 0.3527 ounce.
Hectogram (100 grams) equals 3.5274 ounces.
Kilogram (1,000 grams) equals 2.2046 pounds.
Myriagram (10,000 grams) equals 22.046 pounds.
Quintal (100,000 grams) equals 220.46 pounds.
Millier or tonnea—ton (1,000,000 grams) equals 2,204.6 pounds.

Metric dry measures.

Milliliter ($\frac{1}{1000}$ liter) equals 0.061 cubic inch.
Centiliter ($\frac{1}{100}$ liter) equals 0.6102 cubic inch.
Deciliter ($\frac{1}{10}$ liter) equals 6.1022 cubic inches.
Liter equals 0.908 quart.
Decaliter (10 liters) equals 9.08 quarts.
Hectoliter (100 liters) equals 2.838 bushels.
Kiloliter (1,000 liters) equals 1.308 cubic yards.

Metric liquid measures.

Milliliter ($\frac{1}{1000}$ liter) equals 0.0388 fluid ounce.
Centiliter ($\frac{1}{100}$ liter) equals 0.338 fluid ounce.
Deciliter ($\frac{1}{10}$ liter) equals 0.845 gill.
Liter equals 1.0567 quarts.
Decaliter (10 liters) equals 2.6418 gallons.
Hectoliter (100 liters) equals 26.417 gallons.
Kiloliter (1,000 liters) equals 264.18 gallons.

Metric measures of length.

Millimeter ($\frac{1}{1000}$ meter) equals 0.0394 inch.
Centimeter ($\frac{1}{100}$ meter) equals 0.3937 inch.
Decimeter ($\frac{1}{10}$ meter) equals 3.937 inches.
Meter equals 39.37 inches.

Decameter (10 meters) equals 393.7 inches.
Hectometer (100 meters) equals 328 feet 1 inch.
Kilometer (1,000 meters) equals 0.62137 mile (3,280 feet 10 inches).
Myriameter (10,000 meters) equals 6.2137 miles.

Metric surface measures.

Centare (1 square meter) equals 1,550 square inches.
Are (100 square meters) equals 119.6 square yards.
Hectare (10,000 square meters) equals 2.471 acres.

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TRADE IN SOUTH AFRICA.

The year ended December 31, 1899, was an anomalous one. The disappearance to a large extent of the various plagues and pests with which South Africa had been afflicted in the three immediate past years was hailed with joy by the farmer, and while the agricultural resources of this country are limited on account of the aridity of the soil and the small amount of land tilled, owing to the lassitude of the occupants, still good crops were anticipated, and the indications were most satisfactory. With the advent of war came opposite conditions. The crops, particularly in the Boer States, were left to a large extent unharvested. War closed the ports of the British colonies to importations for these States, entailing depression of business in general, both in Boer and English territory. The Uitlander refugees came to the British colonies for protection and a temporary home. Many were able to settle there and establish themselves until the end of the war, and a very large number were cared for by British hospitality and charity and in due course of time found employment in various vocations. These added materially to the trade of the colonies.

The exports of gold, coal, copper, diamonds, and ostrich feathers—the principal articles of export—fell off materially in October, November, and December.

FOOD STUFFS AND ARMY SUPPLIES.

The only bright side to the picture, if bright side it may be called, is the necessity that the war has created for imports of food stuffs, etc. In these lines, not only the United States, but Australasia and

the Argentine Republic have benefited; Australasia more particularly in frozen meats and butter and the Argentine Republic in cereals, horses, and slaughter cattle on the hoof.

In December, the duty was taken off of frozen meat and cattle and sheep for slaughter, but at the present writing no decrease in price is apparent. Up to the latter part of December, Australia had furnished no less a quantity than 3,000 tons of corned beef, in tins ranging in size from 1 pound to 6 pounds; and the War Office at that time had cleaned out the available stores of that particular commodity in Australia and had to go to the United States for another 1,000 tons pending the replenishment of stocks by Australian packers. For the supply of fresh meat, the War Office had contracted in South Africa; but, in order to maintain supplies and keep down prices, live cattle were ordered from the Argentine Republic.

New Zealand supplied large quantities of oats; but most of this was bought in London, though no English-grown oats was sent to South Africa, as it is considered too "tender" and "will not stand the Tropics." Russian oats was chosen first, as it is hard and can stand the journey through the Tropics, and next comes the American. There were thousands of tons of oat hay sent from Australia; 2,700 tons of common hay came direct from Canada via American ports, and other thousands of the alfalfa variety from the River Plata. Canada also sent compressed vegetables. New South Wales sent food stuffs, including lucern, butter, bacon, frozen poultry, potatoes, eggs, and cheese.

I regretted to learn that the United States could not provide saddles of the desired quality and in the desired numbers. Canada furnished one thousand and England many thousands. The British and South African Gazette stated that on January 1, 1900, the approximate purchases of certain goods on behalf of the military authorities were:

Articles.	Quantity.	Articles.	Quantity.
Preserved meats....pounds...	12,000,000	Whisky....bottles...	12,000
Biscuits....do....	12,000,000	Port....do....	32,000
Coffee....do....	400,000	Lime juice....pounds...	40,000
Tea....do....	200,000	Alum....tons...	80
Sugar....do....	2,000,000	Tobacco....pounds...	40,000
Compressed vegetables....do....	800,000	Carbolic-acid powder....do....	6,000
Salt....do....	400,000	Chloride of lime....tons...	20
Tinned meat and vegetables, cooked together....pounds...	2,000,000	Candles....pounds...	80,000
Condensed milk....tins...	360,000	Hay....tons...	25,000
Jam....pounds...	1,450,000	Oats....do....	31,000
Rum....gallons...	80,000	Disinfecting powder....do....	20
		Bran....do....	3,000

And these items are only a few of the many. From January 1 to the present writing, the list of supplies furnished has not been

issued, but one may imagine the enormous quantity needed. It is to be regretted that in the line of canned meats the demand was so large that the United States packers were not in position to fill all orders that came to them. I am informed that over 4,000,000 pounds of tinned meats were shipped from the United States to England and there rebranded "Shamrock" and shipped to this colony. It must, however, be borne in mind that a correct statement of imports can not be presented in this report, for the reason that the great mass of the importations from all countries for the direct use and consumption of the imperial armies entered without payment of duties, and even without passing through the customs. It is understood that the large purchases of food stuffs and materials from the United States by Great Britain and sent out by the latter in transports to South Africa will be credited in the statistics of the United States as exports to Great Britain.

War has also delayed the inauguration and completion of public works and improvements, thereby reducing some lines of imports and the employment of labor. The embargo at Delagoa Bay on food stuffs for the Transvaal was practically taken off in January; but much time elapsed before orders for food stuffs, even by cable, could arrive from over sea, and it was a question if "behind orders" of United States producers did not become, and are not yet, a serious factor in the inability to obtain food quickly.

It is wonderful, encompassed as were the Boers, that some suffering did not occur; but it was evident that they had been preparing for a long time, and undoubtedly had accumulated large stocks of food, as well as of arms and ammunition.

UNITED STATES TRADE.

The average of imports from the United States has been maintained, even with the nonpurchase of the many lines of goods that went to swell the imports of 1898. When the war is over, an interim may be expected during which a state of uncertainty will exist as to the "modus operandi" of the British Government, either in the direct control of conquered territory or only quasi control; but when all questions for the future guidance of affairs are settled, when many of those who have left the country return, when the gold and diamond mines are again in full operation, yielding more largely than ever, and when the agricultural resources are better developed, the outlook will be bright, and the country will witness an advance in business never before experienced. There will be an impetus given to the importation of goods of all kinds, not only in order to restore stocks to their original quantities, but also by reason of the

increase of capital. I quote from the British and South African Gazette:

> The optimism that prevails among British manufacturers generally as to the great commercial future that is before South Africa when the war is over and British supremacy reigns supreme from the Cape to the Zambesi is highly refreshing, and is in marked contrast to the feeling of depression under which they have labored for the past eighteen months. They argue that, if left to work out its own destiny undisturbed by the recurring troubles of the past few years, with settled and enlightened government, the expansion that must result by reason of South Africa's vast mineral wealth alone, irrespective of the other industries that will speedily open up, can not fail to result in a trade boom which will be unparalleled in the history of our commerce. Moreover, directly peace is declared, they say, the demand for goods of every description will be instantaneous, owing to the fact that stocks all round are at their very lowest ebb and will need immediate replenishing so soon as communication with the several centers is restored.

For that time, the manufacturers and producers of the United States should prepare, not by flooding the country with circulars and price lists, but by sending men, or by working through the export commission houses of the United States which have men here constantly and are subject only to the criticism that they perhaps represent too many lines of goods to do justice to all, or that they are unable, in justice to older clients, to represent similar lines of goods produced by different manufacturers. It is not to be expected that the export commission houses will ever endeavor to become salesmen for cold-storage, mining, electric-light, street-car, or other outfits, and heavy machinery such as steam-railway supplies, rolling stock, and many other articles of great bulk, for they have enough to do in the lines of smaller goods and food supplies.

The total imports into South Africa through the ports of Cape Colony and Natal, entered at the customs, from all countries were:

Merchandise.

Year.	Value.	
18.8	£21,947,808	$106,809,007.63
1899	20,730,230	100,885,664.30

I again call attention to the fact that the large imports for army supplies are not included in above figures.

Imports of specie.

Year.	Value.	
1899	£5,195,782	$25,285,273.10
1898	107,540	523,343.41
Increase		24,761,929.69

It will be understood why this large increase occurred.

The total imports from the United States to South Africa through same ports were:

1898	$13,454,072.56
1899	13,411,935.30

Now, if I could add to the above figures (1899) the imports from the United States that entered through Portuguese territory and imports from the United States through the ports of the British colonies for war purposes not entered at the customs, the increase for 1899 over 1898 would largely augment the above figures.

The United States has for only a few years had any considerable part in foreign trade outside of food stuffs, and much of this has sought her and much has been obtained through the export commission houses which make it their business to seek such trade. Even with what may be called simply "scratching the surface," the results have been very satisfactory. That other nations are jealous is evidenced by their activity in preparing for the capture of trade in South Africa after the present war. Owing, I presume, to the increased price of coal at South African ports, to the inability to obtain coal supplies, and to the serious detention to which steamers are being subjected therein, the rates of freight from New York have been raised by 5s. ($1.21) per ton on all classes of cargo from the 16th of May—except oil and lumber, which have been raised by 20s. 6d. ($4.99) per ton.

The colony of Natal will take off the duty on flour, thereby relieving the people to some extent.

It is a matter of much pride to Americans to note the advance the United States has made in the introduction abroad of products notable for their superior workmanship, efficiency, durability, and strength without unnecessary weight. This may be seen in the line of agricultural implements, machinery of all kinds, and vehicles. There has recently been introduced into South Africa what is known as advertising posters, in both paper and metal, and the superiority in workmanship of the American over the foreign poster, from even an art standpoint, is very pronounced.

Speaking of the outcome of trade after the war is concluded, and assuming that the Transvaal will become a part of the British Empire, as per the opinion of the English trade press, I note the said press is urging the passage of certain laws by which a "premium to foreign competition at the expense of the commerce and industries of the Empire" may be done away with. The following, from the British and South African Gazette, is worth reading:

That the termination of the war in South Africa will produce many changes in fiscal arrangements, and especially with regard to the Transvaal, is undoubted. That, however, it should inaugurate a fiscal federation of the Empire, in the same

way that it has advanced corporate federation, is more in the nature of things desired than what are actually considered as practically realizable. From the many expressions of dissent at imperial fiscal dispositions recently uttered, which offer a premium to foreign competition at the expense of the commerce and industries of the Empire, it is not, however, unlikely that it may even bring this about. Certain it is that the conviction is growing in this country that the immediate future will have to see some modifications of existing fiscal arrangements, if we are to maintain our position in oversea markets against the phalanx of foreign competitors who now contest with our merchants and manufacturers our supremacy in our own colonies.

In a well-written article dealing with this subject, our able contemporary, Feilden's Magazine, says:

"The British people of England and the British colonies are making heavy sacrifices and incurring the gravest risks in their determination to secure for British subjects their legitimate political rights in the South African continent. For this object, sacrifices are made in a willing spirit; but we think the citizens of the British Empire did not contemplate, as a necessary part of their programme, the clearing of the way, at so much cost of blood and treasure, for their commercial rivals. The nation, we submit, is entitled to some compensation. The 'open door' is assumed to be an essential part of our commercial creed, though we do not think it has ever been officially formulated as such. As a matter of fact, Canada gives some British manufacturers preference over those of other nations. Would it be too much to expect South Africa to do the same?"

VEHICLES.

In relation to the vehicle trade, of which the United States has the "lion's share" (which I venture to assert can not be taken away without detriment to consumers and users), the following tells the truth:

The intention credited to Canadian carriage and cart builders to contest the South African market with the United States for the supply of the lighter kinds of road vehicles, while commendatory of their enterprise and justifiable as common sharers with ourselves of the markets of the Empire, invokes the inquiry why British firms have hitherto suffered foreigners to cater for this special want. Our manufacturers apparently adhere to the old and heavy style of vehicle which finds a sale in this country, and altogether ignore the fact that a lighter kind is almost universally in demand in South Africa. The figures of imports into South Africa of wheeled vehicles for 1897 show that the British proportion of the South African trade in these articles was only £27,305 ($132,392), against that of the United States of £73,510 ($357,735) and of Germany of £3,946 ($19,203). The American exports were thus nearly three times the volume of ours. As the American exports are of the lighter kind exclusively and well adapted for the market, this represents a ratio of demand for the two kinds of one to three. Although late in the day, a recognition of this fact may still retrieve the situation. Are our manufacturers so pressed with orders for their particular style of vehicles that the demand for any other is not worth their studying? It would be interesting to have the answer to this question.

The exports of vehicles from the United States to Africa for the month of February, 1900 (when a large part of Africa was in a state of war), were $102,365, against $10,019 in February, 1899.

INCREASED IMPORTS.

I select the totals of a few imports into Cape Colony for 1898 and 1899 that show an increase, not including the large quantities of same goods not entered at the customs on account of war:

Articles.	1898.	1899.
Agricultural implements	$453,314.67	$588,991.96
Bags, all sorts	259,496.10	568,404.18
Corn	301,221.34	452,075.86
Machinery:		
Agricultural	265,979.28	342,318.16
Industrial	1,172,348.47	1,413,375.53
Meat, tinned	938,478.49	1,185,681.15
Milk, condensed	725,356.03	779,810.81
Oil:		
Mineral	298,389.91	521,907.47
Lard	128,236.53	189,123.01
Paints	326,279.31	345,225.27
Printers' material	149,433.34	289,533.99
Tobacco:		
Cigars	235,655.73	338,876.44
Cigarettes	272,420.54	328,825.35
Wire fencing	446,417.26	634,736.55

In all of the above, the United States has its share.

J. G. STOWE,
Consul-General.

CAPE TOWN, *June 1, 1900.*

Under date of June 5, 1900, Consul-General Stowe adds:

DUTCH VS. BRITISH TRADE.

That the Dutch element will, for a time at least, endeavor to boycott English trade goes without saying. I am in receipt of many inquiries from proposed cooperative associations, asking information as to where they can buy United States products and to whom they can sell South African productions. These requests cover catalogues, price lists, lists of manufacturers, etc., and some ask me to recommend men to act as managers. Although these will be cash customers, their wants will be limited as compared with those of the large jobbers at the coast ports, who have the capital, the credit, the storage capacity, and the methods and machinery to dispose of their wares. To sell to these cooperative associations, composed principally of Dutch agriculturists and a few nontradesmen in the towns, thereby ignoring the large jobbers in the large cities, would, I apprehend, be suicidal to our business interests.

On the other hand, much pressure is being brought to bear in the British colonies in favor of reciprocal trade with the Mother

Country, and I note a recent action of the municipality of Pietersmaritzburg, the capital of Natal, to that end. The city council concluded to increase its water supply by 1,000,000 gallons daily. Tenders for the pipes, etc., were to be asked from Belgium, America, England, and Germany; but it was finally decided that as the city went to London when it wanted a loan, it would invite tenders from England only.

It must also be borne in mind that the Uitlanders in the Transvaal have been our best customers and require more lines of United States products than the agricultural Boer ever will. At present, goods entering via Delagoa Bay for the Transvaal pay two duties; through same ports to Orange Free State, three duties; and through British ports, two and three duties. As the late Boer States will possibly for some time be what is known as "Crown colonies," the open door will doubtless prevail.

The customs union that existed between the the British colonies and the Orange Free State (and which the Transvaal would not enter) is now a thing of the past, and a new customs union will possibly be framed.

IMPROVEMENTS.

The colony of Natal (north) has suffered much destruction, and it will be necessary to rebuild and reequip the coal mines with new machinery, and the present high prices for imported coal will be an incentive for Natal to increase production. The docks at Durban show a wharfage of 5,000 feet, and more will be constructed. Pietersmaritzburg, the capital, proposes to borrow about $375,000 for the installation of an electric street railway, while throughout the whole colony the telephone lines will be improved. Expressions of a desire to substitute subconduits for overhead trolley are noted.

In Cape Colony, after the war, many of the cities will build new waterworks and cold-storage plants, and municipal improvements of various kinds may be expected. New lines of railway, ordered by parliament before the war, will be completed.

Johannesburg, built as were some of the "boom cities" of the United States, will be largely reconstructed. The old single-horse railways will disappear, a better system of telephones must be instituted, the water supply and sewerage system will be modernized, the electric-light service extended, and there will be extensive development of mining.

The annual report of the chamber of mines of the Transvaal for 1899 shows an output of gold for eleven months of £14,707,906 ($71,576,024.65), showing a decrease of £433,470 ($2,109,481.76) from the total for 1898. It is understood that no damage has been done to the mines, except through working by men employed by the

Transvaal Government who were not familiar with the care of mines and machinery.

Germany has made a new contract which provides for a substantial subsidized steamer service all round the African coast (heretofore it has been only to Durban). The amount of the subsidy is to be raised to $337,000, instead of $225,000 as before, and the contract is for fifteen years. While the speed fixed is 12 knots, it is stipulated in the contract that an increase must be provided if competing lines advance their speed.

THE SUGAR TRADE OF EGYPT IN 1899.

According to a report of the Austro-Hungarian Chamber of Commerce at Alexandria, there was considerable growth in the sugar trade of Egypt in the year 1899. Both importation and exportation increased, as did also domestic consumption. The amount exported was 65,000 tons, of which 55,300 tons went to America, 4,600 tons to India and Red Sea countries, 3,300 tons to England, 650 tons each to Italy and Turkey, and 450 tons to France. Egypt is exerting itself to the utmost to increase its production of sugar, which has already grown from 7.72 per cent in the year 1897–98 to 8.18 per cent in 1899–1900.

Of the different sorts of sugar, the most salable in Egypt is "concassé." The sort known as "pilé" is fast losing popularity. A recently introduced novelty in the Egyptian market is Austro-Hungarian crystal sugar, of which several thousand sacks have already been imported in the current year. Increased sales can not, however, be counted upon, as Russian "sand sugar" (muscovado) is also being introduced and sold 2 francs per 100 kilograms (38.6 cents per 220.46 pounds) cheaper.

Domestic consumption has increased much more than importation, and this demand is coming more and more under the control of the Société des Sucreries et Raffineries d'Egypte. This company increased its sales of refined sugar in the Egyptian market from 9,850 tons in 1894–95 to 15,900 tons in 1897–98. In the same period, its exportations increased from 455 tons to 5,200 tons.

In addition to refined sugar, the Egyptian market takes about 10,000 tons of granulated sugar, half of which is supplied by the company above mentioned, whose factories are capable of producing 40,000 tons annually. By using electrolysis, the company has considerably improved the quality of its refined sugar, thus increasing its popularity. Prices are regulated by those obtaining in the Trieste market, though the Egyptian company sells for half a franc

less in order to obstruct importation. In Cairo foreign sugars can no longer compete, as factories are located in the vicinity, while imported sugar is burdened with railroad freights amounting to 1.50 francs (29 cents).

GEORGE H. MURPHY,
Vice-Consul.

MAGDEBURG, *June 21, 1900.*

GERMAN BEET-SUGAR INDUSTRY.

The fiftieth annual convention of manufacturers and others interested in the German sugar industry was held at Magdeburg on May 29 to June 1, 1900. In connection with this convention there was an interesting exposition of sugar machinery, etc., showing all recent improvements and inventions. Five hundred and ten members of the Sugar Union were present, representing one hundred and seventy-three factories. Some of the most interesting matters discussed were the following:

THE SACCHARINE QUESTION.

The imperial law regulating trade in artificial sweet stuffs, which was intended to restrict the sale of saccharine, has had an entirely contrary effect; for, according to the statements of saccharine manufacturers, the saccharine produced last year was equivalent in sweetness to over 1,000,000 centners (50,000 metric tons) of sugar. Consequently, the consumption of 1,000,000 centners of sugar was prevented, causing a loss to the imperial treasury of 10,000,000 marks ($2,380,000). The imposing of a tax on saccharine and the requirement by law that it be sold only as a drug are accordingly demanded with justice by the sugar industry. Unfortunately, this question can not be brought up for settlement prior to the next meeting of the Reichstag.

DANGER TO THE SUGAR INDUSTRY FROM SACCHARINE, ETC.

The discovery of saccharine and other sweet stuffs has caused some sugar producers much anxiety, and it is feared that still other similar substances will in the future be discovered by chemists. Furthermore, some farmers are afraid that a method will eventually be found by which beet sugar can be produced synthetically. Neither of these dangers need, however, be feared at present. It is entirely unlikely that it will ever be possible to produce from pit-coal tar genuine sugar in large enough quantities and sufficiently cheaply to seriously injure the beet-sugar industry. Farmers may also find comfort in knowing that, while it is not impossible (in view of the rapid advances now being made in chemical knowledge) that a

process may be found for producing genuine beet sugar artificially, it is nevertheless certain that when the synthesis of sugar is discovered, carbon hydrates will be needed as material, especially in the form of starch flour. Accordingly, even if a sufficiently cheap process be found, the only result will be that other plants containing starch—the potato, for instance—will compete with beets as a raw material in sugar fabrication.

EMPLOYMENT OF ALIEN LABORERS.

Another matter which is considered very important is that Polish laborers who enter Germany every spring should not be compelled to leave the country before a fixed date, which should be the same in all parts of the Empire. Farm hands are so scarce that difficulty is experienced in raising enough sugar beets to supply the demands of the factories. As imported Polish laborers are now compelled to leave Prussia by December 1, the three hundred and eleven Prussian sugar factories are put at a disadvantage as compared with the ninety-one factories in the other German states where there is no such requirement. The Government has accordingly been asked to establish a general rule permitting such useful aliens to remain in the country each year until the end of December.

THE NEW SUGAR CARTEL.

Speeches were made explaining that this cartel is intended for the protection of the German sugar industry as a whole and for the general benefit of all producers.

CONDITION AND DEVELOPMENT OF THE CUBAN SUGAR INDUSTRY.

An interesting report on this subject was read by Governmental Privy Councilor Professor Dr. Paasche, member of the Reichstag, who has recently studied conditions in Cuba. Dr. Paasche took the ground that the German sugar industry is a world industry in the strictest sense of the term, and that its welfare is therefore dependent upon the maintenance of the position which it now holds in the world's markets. All measures adopted for the purpose of influencing the home market, no matter how important they may be, will not, therefore, alone suffice to keep the industry in a healthy condition. German sugar producers must continue to keep their eyes fixed on all competing lands. Dr. Paasche's visit to the United States and Cuba was solely for the purpose of ascertaining if dangers threaten the German sugar industry there. The following is a summary of his remarks:

Formerly, Cuba was the foremost sugar-producing land of the world and controlled the world's markets. Before the recent war, it produced annually over 1,000,000 tons. This amount was reduced 25 per cent by the war, and the shortage

was promptly filled by lands other than Germany. Russia, Austria, Java, etc., have largely increased their production. If Cuba regains its former productiveness, or, still worse, if it doubles its production, as some fear, the magnitude of the disaster which will result in the world's markets can not be overestimated. Fortunately, however, there is no immediate danger. The predictions concerning the moderate amount of this year's crop have been realized. Furthermore, there is little cause for fear in the near future. The results of the war in Cuba are frightful. For miles the traveler passes through desolated country where houses and huts lie in ruins. Many factories have been destroyed, and the walls and broken machinery are overgrown with tropical vines. Where there were formerly broad fields of sugar cane, there are now to be seen only weeds and rank vegetation. Laborers are scarce because many thousands of them starved or were murdered during the war. Capital and enterprise are also lacking, and without these factories can not be rebuilt and operated. In order to give new life to the industry, enormous capital will be needed, for business must be transacted on a very large scale if the industry is to be made profitable. At the same time, it must be admitted that hardly anywhere else in the Tropics are the conditions naturally so favorable for the sugar industry as in Cuba. The soil is fertile and the geographical position of the island is most suitable for commerce. The factories are large and well equipped with labor-saving machinery. Good, but not too cheap, raw materials are available, and the manufacturing process in use is effective and inexpensive. But, as has been said above, capital and enterprising spirit are needed. Even the Americans are afraid to invest money in this at present unsafe business, and therefore the manufacturers are obliged to pay a very high rate of interest on their debts. Most of them are in debt, as even those who did not suffer from fire during the war lost heavily in other ways. Everything now depends upon the course which the political development of Cuba will take.

Dr. Paasche thinks that if Cuba were annexed to the United States, and the Cuban sugar industry enjoyed the advantages of the American customs tariff, thereby securing increased prices, American capital might be attracted by the increased profits of the business. "The only thing for the German sugar industry to do," he adds, "is to face these dangers with united forces, continuing its present policy. Thus, in spite of whatever may happen, Germany will be able to maintain the foremost place which it has now gained."

EXPERT REPORTS.

Another question considered by the conference was, Is it advisable from time to time to send an expert to the various sugar-producing countries to prepare reports in regard to crop prospects and existing conditions? This question was practically decided in the affirmative, though it was thought best to do this only occasionally and when there is some special reason for such action.

APPOINTMENT OF AN EXPERT TO CONTROL APPLICATIONS FOR PATENTS.

This question has been under consideration since 1893. The sugar industry needs protection against inventions which are not really inventions, and also against patents which are not distinctly worded. An expert chosen for this position would have to decide

in each case whether it is in the interest of the sugar industry to raise objection to the granting of a patent. Such an expert must have a scientific and technical education, and also experience in all branches of the industry. Some retired factory director will probably be able to fill the position best. It is held that before any alleged improvement affecting the sugar industry is admitted to be a patentable invention, an expert representative of the industry should be given an opportunity to examine it and decide upon its worth and utility.

INFLUENCE OF CHEMISTRY ON THE DEVELOPMENT OF THE INDUSTRY.

The influence which chemistry has exerted upon the production of beet sugar has been very great and has rendered possible the victory of the beet over sugar cane, the production of beet sugar in the world being now twice as large as that of cane sugar. No other existing industry is subjected to such thorough and scientific control as is the German beet-sugar industry. In German sugar factories there are now employed about one thousand chemists who give their undivided attention to furthering the interests of the industry. This trained personnel is of the greatest importance.

UTILIZATION OF WASTE MATERIALS IN THE MANUFACTURE OF BY-PRODUCTS.

The production of sugar from molasses has been of great importance to the industry, and it first led to the employment of chemists. The utilization of waste materials in the manufacture of by-products has also had a beneficial effect. By cooking molasses dregs, after the removal of the sugar, a potash is won which is preferred to all other sorts in the soap industry. From the parts of the same material which contain nitrogen, cyanide of potassium is also produced. This substance is much used in modern gold mining in the Transvaal, and also to a growing extent in the United States. It is believed that a method will be found sooner or later for using electricity in the clarification of beet juice.

INCREASE OF THE PERCENTAGE OF SUGAR IN BEETS.

The scientific cultivation of beets for the purpose of securing improved seed dates back to 1850, when individual beets found to be especially rich in sugar were first selected for this purpose. This plan has been carefully adhered to ever since, the best results being obtained at Klein Wanzleben, near Magdeburg. German beet-seed raisers have thus succeeded in distancing all their foreign competitors. Fifty years ago, beets containing 10 to 12 per cent of sugar were considered good; but now an average of 14 to 16 per

cent is not uncommon, and in exceptional cases still better results are reached. In the meanwhile, the percentage of sugar in sugar cane has remained unchanged, namely, about 12 per cent in medium qualities.

GEORGE H. MURPHY,
Vice-Consul.

MAGDEBURG, *June 13, 1900.*

UTILIZATION OF SUGAR-BEET WASTE AS MANURE.

Until recently, no satisfactory process had been found for utilizing the waste materials which accumulate so rapidly in German beet-sugar factories. The questions found most difficult to solve were:

(1) How to reduce to useful form the valuable ingredients remaining in the mass.

(2) How to obviate the unpleasant odors.

(3) How to safely dispose of the dangerous waste water.

These difficulties were seriously felt, especially in establishments producing sugar or alcohol from molasses, the residuum known as brown lye or molasses dregs being a substance which it was found difficult to dispose of satisfactorily. When emptied into rivers either directly or through sewers, it is said that a certain result was the death of a small percentage of the fish in such streams. When the lye was reduced to saline (Schlempekohle) or potash, the products of combustion escaping through the chimney spread odors so offensive as to cause annoyance and discomfort in the vicinity. It is now claimed that these evil-smelling products of combustion contain valuable manure stuffs, and, further, that the manuring of fields with waste material of this sort is advantageous, because the soil thus receives back in easily assimilable form useful matter of which the beet deprived it in its growth, especially potassium and nitrogen. This molasses lye can not, however, be conveniently used as manure, owing to the fact that the large quantity of water which it contains makes its transportation too expensive. Furthermore, it can not be used in a concentrated state on account of its inconveniently stiff and sirupy form.

It is accordingly interesting to learn that a process has recently been invented which, it is alleged, obviates all the difficulties mentioned above, including bad odors, dangerous waste water, and inconvenient form. By this process, molasses lye is changed into a dry substance which can be stored and eventually easily scattered over fields. A recent issue of the Hanover Journal of Agriculture and Forestry gives the following analysis of the product: Nitrogen, 3.22 per cent, of which 2.74 per cent is nitrogen soluble in water

(of this 0.7 per cent is ammonia nitrogen and 0.09 per cent saltpeter nitrogen); phosphoric acid, 0.13 per cent, of which 0.04 per cent is phosphoric acid soluble in water; potash (soluble), 10.74 per cent; carbonate of lime, 25.99 per cent.

The value of the manure is 3.05 marks (72.59 cents) per centner (110 pounds). It is said that molasses-sugar refineries and molasses distilleries will be able to secure higher net profits from this manure than now result from the manufacture of saline and potash, and that the process is of considerable value from a hygienic standpoint. The inventor believes that the application of the process can be extended to waste materials of other industries, and perhaps also to sewage matter.

GEO. H. MURPHY,
Vice-Consul.

MAGDEBURG, *June 21, 1900.*

GERMANY'S SUGAR EXPORTATION.

Germany's exportation of raw sugar has always exceeded that of any other European country. In the exportation of refined sugar, however, it was third down to 1881–82, France being first and Austria second. Between 1882 and 1887, Austria repeatedly gained the first place. In 1887–88, however, Germany led, and it has held this position ever since, with the exception of the years 1892–93 and 1893–94. In the eleven years which have elapsed since 1889, Germany's exportation of raw sugar has increased from 349,310 metric tons* to 493,531 metric tons, the amount being largest in 1897 (681,516 metric tons), when the United States took 367,301 metric tons before July 24, the date on which the new customs tariff went into force. This amount exceeded Germany's entire exportation of raw sugar in 1889 and was twice as much as was shipped to the United States during the entire year 1899. The principal buyer of German raw sugar prior to 1897 was Great Britain, which in no year took less than 200,000 metric tons. The sale of German raw sugar in British North America is of great importance, having increased very considerably during the past three years. Since 1895, exportation to Denmark has largely increased, and sales to Sweden were much enlarged in 1899. Formerly, Holland was a large buyer of German sugar; but this business fell off very much between 1895 and 1898, showing no signs of improvement until 1899.

The exportation of loaf sugar has recently increased considerably, owing especially to the magnitude of the English demand. In 1889, the exportation of this sort of sugar amounted to 163,286 metric

*1 metric ton=2,204.6 pounds.

tons, and in 1898 it had grown to 487,993 metric tons. The exportation decreased, however, in 1899 to 425,399 metric tons. In 1895–1898 Great Britain took annually in loaves over 300,000 metric tons, and in 1899 it received over sixth-sevenths of the entire amount exported. Although the exportation of German raw sugar to the United States is very great, there is small demand there for loaf sugar, the amount sent in 1895 and again in 1896 being 10,000 metric tons, while in 1899 it was only 684 metric tons. This was caused by high customs duties in the United States. The market conditions in Japan, Norway, and Switzerland are now especially encouraging, each of these countries taking more than 10,000 metric tons of German loaf sugar annually. There has been a marked falling off in shipments to Holland, Chile, and British India. This falling off is particularly noticed in shipments to British India, as large quantities were exported to that country annually between 1893 and 1898. The amount sent to Italy is inconsiderable.

Of other sorts of sugar, only comparatively small quantities are exported, the principal purchasers being Great Britain, Norway, Portugal, and Uruguay.

The exportation of sirup and molasses increased between 1889 and 1893 from 14,426 to 100,514 metric tons; but since then it has declined, the quantity exported in 1899 being only 4,739 metric tons. This is due almost entirely to French tariff legislation, France being practically the only buyer.

That the German sugar industry is still in a prosperous condition is shown by the following sample quotations from the financial columns of the Magdeburg Zeitung:

REPORTS OF SUGAR FACTORIES FOR 1899–1900.

The Dettum Sugar Factory, after deducting 475,119 marks ($113,078) for business expenses and 23,603 marks ($5,616) for reduced value of machinery, etc., earned 94,648 marks ($22,526) on a capital stock of 300,000 marks ($71,400).

The Rostock Sugar Factory (capital stock, 1,000,000 marks=$238,000) spent for beets 1,245,517 marks ($296,433); factory and business expenses, 308,141 marks ($53,338); reduced value of machinery, etc., 58,425 marks ($13,905); taxes, etc., 26,054 marks ($6,201); net earnings, 119,217 marks ($28,374).

The Hedwigsburg Beet-Sugar Factory (capital stock, 465,375 marks=$109,759) used for business expenses 780,092 marks ($185,662); reduced value of machinery, etc., 24,789 marks ($5,900). A surplus of 151,495 marks ($36,055) was divided among the stockholders.

GEORGE H. MURPHY,
Vice-Consul.

MAGDEBURG, *June 15, 1900.*

OCHER IN EUROPE.

In compliance with the request of a resident of New York, a Department instruction was sent under date of February 21, 1900, to certain consular officers in Europe, asking for information relative to the market for yellow ocher, a rich deposit of which has been found in Texas. The answers received* follow.

BELGIUM.

ANTWERP.

From information derived from the best available sources, it has been ascertained that the quantity of ocher consumed in this consular district is of small importance from a commercial point of view. The quantity bought in this market annually varies from 11,000 to about 22,000 pounds, the figures last quoted representing the maximum of any transactions yet recorded.

The best varieties of the yellow or golden ocher are imported from the port of Marseilles, while the inferior qualities are produced in the southern district of this country.

The price varies considerably, the inferior quality being sold as low as 39 cents per 220.46 pounds, while the finest quality is sold at the rate of $5.79 for the same quantity.

The foregoing contains all the information that it has been possible for me to obtain here. As will be seen, this market affords little encouragement for the exportation of the substance named.

GEO. F. LINCOLN,
Consul-General.

ANTWERP, *March 16, 1900.*

BRUSSELS.

The small amount of yellow ocher demanded on the market of this consular district is imported from France and Italy and varies in price from 12 to 30 francs ($2.31 to $5.79) per 100 kilograms (220.46 pounds), according to quality and fineness.

Manufacturers refuse to give prices of crude ocher.

The customs officials state that yellow ocher imported into Belgium is classed under the head of dyes and colors, free of duty, and that no separate record is kept as to the value or quantity of this product; consequently it is impossible to ascertain the amount consumed in this district.

Some years ago, a small mine of yellow ocher was found and worked at Sclaigneau, Belgium, but it is entirely exhausted.

*ADVANCE SHEETS have been sent the inquirer.

I am informed that the ocher in general use here is the red and brown variety, found in this country. Wholesale price of native red and brown ocher pulverized is from 4.50 to 5 francs (86 to 96 cents) per 100 kilograms (220.46 pounds). Red ocher imported costs from 10 to 18 francs ($1.93 to $3.47) per 100 kilograms (220.46 pounds).

I submit herewith the following list of manufacturers of mineral colors in this district:

Société Anonyme d'Anderghem, Anderghem.
M. Courtois, Grez-Doiceau.
C. Duquaine, Grez-Doiceau.
S. Hanquet, Grez-Doiceau.
H. F. Raoff, Grez-Doiceau.
DeKeyser frères, Laeken.
A. Coyette, Ligny.
Aug. Batty & Co., Namur.

GEO. W. ROOSEVELT,
Consul.

BRUSSELS, *March 23, 1900.*

FRANCE.*

HAVRE.

The extraction and preparation of ocher has been an industry in France for nearly two centuries. French ochers have a world-wide reputation, owing to their richness in oxides of iron and the care which is taken in their manufacture. They are principally found in five Departments—Ardennes, Isère, Lot et Garonne, Vaucluse, and Yonne.

In the first three named, comparatively small quantities are produced, the important quarries, mines, and manufactories being located in the Departments of Vaucluse and Yonne.

The veins of ocher in the Department of Yonne are not of great thickness, varying from 70 centimeters to 1 meter (27½ to 39.37 inches). They are, however, rich in oxides of iron and give a proportionately large yield of the finished product. The ocher in this region is almost exclusively mined in subterranean galleries, radiating from central shafts which in some cases are sunk to a depth of 33 meters (109 feet).

In the Department of the Vaucluse, the strata are much thicker. According to statements made by several of the largest manufacturers of ocher in that district, the veins vary from 8 to 20 meters (26 to 67 feet). The ocher is extracted both from open quarries and from subterranean mines or galleries.

*A report has also been received from Consul-General Gowdy, of Paris, giving information covered in the reports printed.

The yellow ochers are those found in a natural state, the red ochers being obtained from the former by calcination.

The clay, when taken from the ground, is submitted to a series of operations for the purpose of separating the coloring matter, or ocher proper, from foreign substances. It is first dried, either in the open air or in drying machines, according to the season; then ground to a powder and well sifted; then washed; and, after being dried, is again ground and sifted. It is then ready for consumption.

The quality of red ocher depends upon the yellow ocher from which it is made. A common yellow will give a common red, and so on.

To obtain red ocher, yellow ocher is mixed with enough water to make it of a consistency from which pats can be molded. These pats are put into a kiln and heated till all the water entering into their composition has evaporated. They are then taken out, broken up, and, after being ground and sifted, are ready for use.

It is difficult to get the exact figures of the production of ocher in France, as the official statistics themselves are only approximate. According to the latter, the production in 1896 was 27,499 tons of 1,000 kilograms (2,204.6 pounds), divided as shown in the following table:

Production of ocher in France in 1896.

Department.	Quantity.	Value at mines.	
	Tons.	*Francs.*	
Isère	10	200	$39
Lot et Garonne	289	2,312	446
Ardennes	1,200	4,200	811
Vaucluse	11,000	292,000	56,356
Yonne	15,000	329,000	63,497

In 1897, according to the same authority, the production was 32,290 tons, and it is estimated that the output in 1899 was 40,000 tons.

In the following table, taken from the French official custom-house returns, are shown the quantity and value of the importations and exportations of ocher, ground and otherwise prepared, for the last three years:

Importations and exportations of ocher into and from France.

Year.	Imports.			Exports.		
	Quantity.	Value.		Quantity.	Value.	
	*Tons.**	*Francs.*		*Tons.**	*Francs.*	
1897	523	29,524	$5,698	17,605	902,906	$191,631
1898	537	30,274	5,843	20,898	1,178,627	227,475
1899	568	34,098	6,581	23,459	1,407,558	271,659

* 2,204.6 pounds.

From these statistics, it will be seen that France not only produces enough ocher for its own wants, but annually exports considerable quantities. The countries to which ocher is sent from France, in the order of the importance of the amount of exportation, are as follows: Germany, Russia, United States, England, Denmark, Norway, Sweden, Spain, Greece, Turkey, and Bulgaria.

The prices of ocher in France vary greatly. They depend upon the quality, upon the care taken in the preparation of the ocher, upon the shades of color, and upon the demand. Each manufacturer has a different price list. The average prices of ocher free on board in the Department of Yonne, per 100 kilograms (220.46 pounds), are as follows:

Description.	Price.	
First quality.		
Common:	*Francs.*	
In powder	1.50	$0.29
Washed	2.50	.4925
Fine:		
In powder	5.00	.965
Washed	8.00	1.55
Superior quality.		
Common, washed	4.50	.87
Fine, washed	6.25	1.21
Superfine	10.00	1.93

A large ocher dealer in Havre quotes for "ocher of Bourgogne," per 100 kilograms delivered in Havre, in not less than ton lots, as follows:

Description.	Red.		Yellow.	
	Francs.		*Francs.*	
Common	6.70	$1.29	5.20	$1.00
Washed	9.95	1.92	6.95	1.34
Superior quality, washed	10.60	2.045	8.50	1.64
Superfine	13.25	2.56	9.05	1.75

The ochers are sold by the gross weight; payments in sixty days. They are generally shipped in barrels, lined with heavy paper, weighing, gross, about 500, 350, 250, 120, and 60 kilograms each.

The following items, taken from an invoice of yellow ocher recently shipped from Havre to New York, will show the expenses attached to such shipments:

	Kilograms.	Pounds.
200 hogsheads weighing, gross	67,600	=149,031
Tare	6,760	= 14,903
Net	60,840	=134,128

	Francs.	
67,600 kilograms (149,031 pounds) at 5.40 francs ($1.04) per 100 kilograms (220.46 pounds)	3,650.40	=$704.53
Packing	500.00	= 96.50
Consular invoice	13.00	= 2.50
Statistics dues	20.60	= 3.98
Cartage	101.40	= 19.57
Bills of lading, stamps, etc	4.10	= .79
Insurance	18.00	= 3.47
Commission	101.40	= 19.57
Total	4,408.90	= 850.91

The price f. o. b. Havre of the quality of ocher mentioned in the invoice would be 6.52 francs per 100 kilograms ($12.58 per ton of 2,240.6 pounds).

The rate of freight for ocher in hogsheads from Havre to New York by the French Line, in the regular steamers sailing every Saturday, is 15 francs ($2.90) per 1,000 kilograms (2,204.6 pounds); by the supplementary freight line, 8 francs ($1.54) per 1,000 kilograms; and by the Hamburg-American Line via Hamburg, 12.50 francs ($2.41) per 1,000 kilograms.

The rate of freight for ocher in hogsheads from New York to Havre by the French Line is 25 cents per 100 pounds by regular steamers and 15 cents per 100 pounds by the supplementary freight steamers.

The French customs duties on ocher, ground or otherwise prepared, per 100 kilograms (220.46 pounds), are as follows:

	Centimes.	
Maximum tariff	35	=$0.0675
Minimum tariff	25	= .048
Crude ocher	Free.	

Ocher not being included in the tariff agreement between the United States and France now in force, the American product would have to pay the maximum tariff.

The low price of labor engaged in the ocher industry of France and the economical and skillful methods employed in making the finished product reduce the cost of ocher to a minimum. The cost of the production of American ocher is not known to me, but, having the information embodied in this report, the American manufacturers can determine if they are in a position to compete in France with the native article.

The French dealers say: "We do not believe that ocher can be sent to France from any country, owing to the fact that this product is essentially a French specialty."

Notwithstanding this claim, I am assured by the American Chamber of Commerce in Paris that it would be pleased to have samples

of American ocher, with quotations, as it is interested in the introduction into France of all American products. I would therefore advise American producers of ocher to send samples of their goods, with quotations, to Paris, directed to Mr. G. M. Green, secretary of the American Chamber of Commerce, 3 rue Scribe, Paris.

A. M. THACKARA,

HAVRE, *April 12, 1900.* *Consul.*

MARSEILLES.

There is no immediate prospect of replacing native French ocher with that of the United States. The consumption in this country is comparatively small and the production relatively large. The canton of Apt, in this consular district, supplies most of the ocher mined in France; and the total production (about 18,000 tons in 1899) is almost exclusively exported. The following is the annual division by countries:

	Tons.
Germany	7,000
Russia	4,000
Denmark, Sweden, Norway, and England	1,000
United States of America	3,000
Greece, Turkey, Bulgaria, Roumania, and Spain	1,500

The remaining quantity is divided among other nations.

Inasmuch as the ocher industry has not yet attained importance in the United States, an account of the development of the deposits in France may prove useful. The ocher district is located within a radius of about 40 miles of the town of Apt, in the Department of Vaucluse. The country is dotted with hills of alluvial clay, all more or less rich in ocher. Two methods of securing the product are employed. If the vein lies under comparatively level ground, a shaft is sunk, and radiating tunnels are cut from the shaft. If the vein passes through a hill, it is either quarried or taken out from horizontal tunnels. Owing to the expense of employing timber, as much as 50 per cent of the clay remains in the mines in the form of pillars supporting the roof, and the entire mining operation is carried on in a most primitive and conservative manner. The clay is carted for several miles to the valley below, where the washing process begins. A suggestion to make use of buckets running on overhead cables has met with no favor, because of the expense involved, although such a gravity system might be introduced with entire success.

The clay as mined is composed of fine sand and ocher, free from gravel and pebbles, and is dug during the winter only, this being

the season of the year in which water can be obtained for the washing process, the water courses drying up completely in summer.

The separation of the ocher from the sand is a very simple operation, brought about by flooding the raw ocher with water and securing the purified product in settling basins. Three grades are obtained by the process employed, of varying degree of fineness. The clay, when it comes from the mines, is first spread over a surface of about 1 acre, and ditches are dug through it, leading to a series of tanks, four or five in number, each successive tank being located a few feet lower than its neighbor. A gentle stream of water is diverted into the ditches running through the bed of clay, and the water flowing through slowly softens the ocher and fine sand and gradually washes them toward the tanks in the form of muddy water. On the way to the first tank the sand, being heaviest, is precipitated in the ditches, and the water before it reaches the first tank contains nothing but the ocher. The largest and heaviest particles of ocher settle in the first tank, and the water overflowing into the second deposits therein a finer quality, and so on, to the fourth or fifth tank, where the finest grade is deposited.

This process continues throughout the winter, so that by spring the tanks are filled with pure ocher in the form of heavy mud. As the dry season comes on, the water is turned off and the tanks are thoroughly drained. When the deposit is sufficiently dried to become plastic, it is cut into bricks of regular size and exposed in the sun until dried completely. Some quantities of ocher are shipped in this brick form, but by far the greater part is crushed, not ground, into powder.

The great difficulty of the manufacturers is to maintain a uniform shade, as the deposits contain an infinite variety of colors, ranging from dark red to the well-known yellow or gold, most of which goes to the United States. The only really successful mines are those which produce some shade of yellow, and the market value of the product declines as the reddish tint asserts itself.

There are deposits of perfectly red ocher near Apt, but it fails to compete with the so-called venetian red, lacking the intensity of the latter. Russia and Germany buy considerably more than the United States, but they take inferior qualities.

The mines near Apt have been worked for many years, and are unlikely to become exhausted for a long time. There is one large mine the annual output of which alone is sufficient to supply the world's market for a certain shade, the one usually demanded in the United States, whose owner anticipates that he will be able to continue to furnish the same quantity and quality for at least forty years. This mine has already been operated for that length of

time. It supplies three times the annual demand for that particular shade in the United States. I make particular mention of it as it is the only one which has furnished a uniform quality throughout its history, the products of almost all the other mines varying in different years. Many mines are abandoned as the earth turns from yellow to red, but very few have been abandoned owing to the exhaustion of the supply.

The ocher deposits in this district are owned and operated in a small way. About forty firms are in the business, but of these probably not more than one-third market their own product, the other two-thirds selling their output to the actual shippers. Owing to competition and cutting of prices, the present condition of the industry is considered poor; but this refers mainly to average qualities, as the high-grade ochers demanded in the American market bring uniformly good prices.

Many attempts have been made to consolidate the mine ownership, and thus control the market and establish prices, but so far without success. The owners have recognized their weakness and have endeavored to organize a syndicate among themselves; but dissensions have always arisen, and every effort has come to naught. French capitalists have studied the situation; but, as the owners asked absurdly high prices for their property, when the moment for action came the necessary funds were not forthcoming; and furthermore these same capitalists were confronted with the danger that new mines might spring into existence, as the entire region about Apt contains more or less ocher, a fact determined frequently by Government engineers.

At the present time, an American company is endeavoring to secure a monopoly of the sale of ocher in the United States, but with no prospect of succeeding. It is said that the only scheme for centralizing the trade which could meet with favor would be to contract for the entire output of all the mines, guaranteeing the owners an annual sale of a fixed quantity at a fixed price. As this plan does not involve large capital, there is some chance that it may yet succeed.

American buyers are having continual difficulty in securing the shades they desire, owing in part to the different methods of testing employed. While the American dealers make their tests with oil to ascertain the intensity of the coloring power, the French manufacturers simply make comparisons of the ocher in a dry and in a wet state.

I learn from those high in authority in this business that, although few deposits of ocher have been discovered in the United States, the quality compares well with the French product, and in the opinion

of a very active New York dealer it is a question of a few years only until the United States trade will find American ocher as good in quality as that produced at Apt, and considerably lower in price, as American miners will certainly avail themselves of every modern mining appliance.

Recent sales of yellow or golden ocher in Apt have been made at $1.20, $1.30, $1.35, $1.37, and $1.60 per 100 kilograms (220.46 pounds). The freight and petty charges for transportation to Marseilles amount to from $1.60 to $1.75 per ton. The merchandise is packed in barrels. The total exports to the United States from Marseilles have amouted in value to the following sums: Fiscal year 1897, $48,540; 1898, $42,130; and 1899, $49,915.

ROBERT P. SKINNER,
MARSEILLES, *March 12, 1900.* *Consul.*

GERMANY.

BERLIN.

Yellow ocher is very largely used in Germany. Ocher of inferior grade is found in central and southern Germany, but the better qualities are imported in large quantities from France, where it is found principally in the region bordering the Mediterranean.

The question of value depends entirely upon quality—that is, tint, fineness of grain, and freedom from impurities. The value of Texas ocher and its adaptability to the German market can only be determined by actual test with a large sample.

If the owners of the newly found deposit will send me a sample of, say, 25 pounds, I will place it in the hands of Mr. E. Wilczynski, of Berlin, the principal wholesale dealer here in that class of materials and who, if the quality should prove satisfactory, will be the best person in my acquaintance to undertake the importation and sale of it on a large scale.

The letter should give also the extent of the deposit, if known, and whether the parties interested are prepared to deliver it in quantities of from 10 to 50 tons.

As soon as the quality can be fixed by test, its market value in Germany and other particulars will be reported.

FRANK H. MASON,
BERLIN, *March 12, 1900.* *Consul-General.*

HAMBURG.

Yellow or golden ocher is for the most part imported into Hamburg from France, a small amount coming from inner Germany. This ocher is then exported to all parts of the world, especially to

the United States and Russia. About 17,000 tons arrived in the Hamburg market last year.

The producers of ocher would do well to send a kilogram sample of each of the different kinds of ocher found, the raw mineral as well as the washed, and sufficient to show the different shades. They should also state what quantities could be shipped per annum, giving the lowest prices at which they could sell the ocher free on board at a port of the United States where there is a regular line of steamers sailing for Germany. They should further give their prices for the ocher packed in good, strong barrels of 70, 140, 250, and 350 kilograms.

I am informed that a great deal of ocher is used in England for the manufacture of linoleum.

The two largest importers of golden or yellow ocher in Hamburg are Reinhard Schneider, Hopfenmarkt 16, and Ernst C. Bartels, Hohe Bleichen 22, the former being the first person who imported yellow ocher into Hamburg from France.

HUGH PITCAIRN,

HAMBURG, *March 26, 1900.* *Consul.*

NETHERLANDS.

The imports of ocher into the Netherlands, during the year 1898, were: Unground, 18,023 kilograms (39,650 pounds) from Great Britain and Prussia; ground, 1,349,999 kilograms (2,969,997 pounds) from Belgium, Bremen, France, Great Britain, Hamburg, Prussia, Italy, and Russia.

The imports at Amsterdam, during the year 1899, amounted to:

Kinds and whence imported.	Quantity.	
	Kilograms.	*Pounds.*
Unground (from Prussia)	10,937	24,061
Ground:		
France	14,529	31,963
Great Britain	133,881	294,538
Hamburg	37	81
Belgium	1,010	2,222
Prussia	16,332	35,930
Total	165,789	364,734

The wholesale price of the article varies from 1.50 to 3.50 florins (60.3 cents to $1.41) per 100 kilograms (220.46 pounds), according to quality.

FRANK D. HILL,

AMSTERDAM, *March 13, 1900.* *Consul.*

UNITED KINGDOM.

LIVERPOOL.

I have made inquiries of nearly all the large dealers in ocher in this city, but have not been able to get any detailed information. I learn, however, that it is imported from France at very low rates and in small quantities, and that, without doubt, there would be a demand for any quality from the United States if it were introduced on this market. The demand is met by the importations from France and by the mines in Great Britain. Yellow ocher is chiefly used for paint, staining, and coloring.

I have not been able to ascertain the quantities of ocher consumed in any particular district.

The quantity of ocher raised from the mines and quarries in the United Kingdom during the year 1898 was 19,827 tons, the highest during the past twenty-five years.

The price of the ocher imported from France ranges from 40s. to £20 ($9.73 to $97.33) per ton; that from Ireland, from 30s. to £4 ($7.30 to $19.46) per ton; and that from Wales, from 30s. to £20 ($7.30 to $97.33) per ton.

JAMES BOYLE,
Consul.

LIVERPOOL, *March 28, 1900.*

GLASGOW.

The following are the various classes of ochers used here, with information regarding each:

French ochers have by far the largest sale. They are of a very bright golden shade, the brightest of all ochers imported into this district. They are not "strong," however. These ochers are used largely by paper makers, floor-cloth and linoleum makers, and color dealers. What commends them is their brightness and cheapness. The prices range from 66 cents to $1.46 or $1.70 per cwt. (112 pounds) in fine powdered state.

Spanish ochers are much "stronger" than French, but not so bright. They have also a good sale, but nothing compared to the first named. They are good staining ochers and are mostly used in the paint and color trade. The prices are about $1.21 per cwt. in crude state.

Italian and Sardinian ochers also command a good sale, larger than the Spanish, and the consumers are principally paint and color dealers.

Approximately, the quantity of ocher consumed in this district is 600 tons per annum. Of this, 500 tons is French, and other countries account for the remaining 100 tons.

The ochers named are all more or less of the yellow or golden variety, this being particularly characteristic of the French. There are a few other varieties represented, but these are very little in demand.

It would seem that brightness and cheapness would be necessary for the successful introduction of a new ocher here.

SAMUEL M. TAYLOR,
GLASGOW, *March 14, 1900.* *Consul.*

FRENCH MARKET FOR LUMBER.

I am in receipt of a letter from a New York firm asking a number of questions concerning the French market for several varieties of wood. As the subject may be deemed of general commercial importance, I forward my answer to the Department.

Only white oak will find a market in this part of France. Red oak is objected to on account of its lack of uniformity in tint and color.

Large quantities of squared and sawed oak are now received in France from the United States. The price, laid down in Lyons, is 140 francs ($27) per cubic meter (35.316 cubic feet).

The wood must be first class to meet the demand of this market. It must be free of knots, 5 and 6 meters (18.02 and 19.68 feet) long, 22 to 50 centimeters (8.7 to 19.68 inches) wide, 1 to 5 inches thick. No other dimensions are demanded here.

American walnut has not found a place in this market, so far as I have been able to learn. French walnut brings from 100 to 110 francs ($19.30 to $21.23) per cubic meter. It is sold in blocks of a minimum circumference of 1 meter 50 centimeters (4.92 feet), from 3 to 5 meters (9.85 to 18.02 feet) long.

Satin walnut is not known in France.

Ash is not bought in boards or planks, as it is said to be easily damaged when shipped in that shape. It could be sold, laid down in Lyons, at 80 francs ($15.44) per cubic meter. It should be in pieces from 4 to 6 meters (13.12 to 19.68 feet) long.

The customs duties on such woods—round, rough, with or without bark, independent of length, of a circumference of 60 centimeters (23.6 inches) at the large end—are 65 centimes (12.5 cents) per 100 kilograms (220 pounds); wood, sawed and squared, 80 millimeters (3.15 inches) of thickness and over, 1 franc (19.3 cents) per 100

kilograms; sawed woods, 35 millimeters (1.38 inches) and over, 34 cents per 100 kilograms.

It is not worth while to attempt to export poplar or any soft whitewoods to France. They are grown here in abundance. A large proprietor, who has many thousands of poplars on his lands, answered my questions on this subject in the following language:

> A boy can plant 1,000 poplars in a day along a brook, a river, or a roadway. It costs nothing to grow them and their roots add firmness to the earth. They can be trimmed twice or three times in twenty years, and at each trimming the branches bring 1 franc. The branches are dried and sold to bakers. They furnish the quick, intense heat which gives the thick crust to the bread. There is always a market for them. At the end of twenty years, the tree will always sell for a franc.

The poplar wood is used in making the light boxes in which silks, velvets, satins, wines, mineral water, perfumery, and other French specialties are packed. The consumption of this wood is very great, but has never yet been in excess of the domestic production.

JOHN C. COVERT,

LYONS, *June 20, 1900.* *Consul.*

GREEK MARKET FOR LUMBER.

Owing to the tariff troubles between Turkey and Greece, the Greek importers of timber are considering the question of importing from some other country the large quantities of timber, lumber, staves, etc., which they have heretofore annually brought from Turkey, and I think it well to inform American exporters of this fact, that they may have a chance to make a bid for the custom of the Greek market.

As Greece does not produce any timber for manufacturing purposes, and very little for any use, she is obliged to import nearly all she consumes. In 1898, the latest year for which Greek import statistics have been published, Greece imported woods for building and manufacturing purposes valued at 7,709,726 francs ($1,511,710.98) from Austria, Turkey, Germany, Roumania, Russia, Italy, France, United States, Belgium, and England, these countries furnishing portions of the whole in the order named. Austria and Turkey produced the largest part of all the woods imported, while the United States furnished a few thousand staves for currant barrels.

The demand for woods of all kinds is rapidly increasing in Greece, and the local prices are very high. The great distance will make the freight on timber from the United States much higher than from any other of the countries named; but with a direct line or

lines of steamships connecting Greek and American ports, there would be a good chance to open up the Greek market for our native timbers—a market in which the demand for good qualities will annually increase.

DANIEL E. MCGINLEY,
ATHENS, *June 16, 1900.* *Consul.*

AMERICAN LUMBER IN GERMANY.

Germany presents a good market for American lumber in the log. There has been so much American sawed lumber imported during the past few years that German sawmill owners are agitating in favor of a high tariff on sawed and hewn lumber. Their reason for such action is obvious. If the present tariff continues in force, the import of logs will in time cease altogether. This will not only materially injure the mills, but will tend to render unprofitable a thriving German industry, as well as throw a great many laborers out of employment.

The American lumber trade in Germany has always been attended with a great deal of friction. An American exporter of lumber wrote me last fall:

I have been exporting logs, lumber, and staves for a good many years, and have sold to Spaniards, Englishmen, Italians, Frenchmen, Norwegians, and Germans, and have had more trouble with the Germans than all the others combined. The Germans are prone to put in claims for short measurement, etc., to deprive exporters of what is due them.

The following letter from an impartial, reliable observer in Hamburg, however, shows that the German importer is not without cause for just complaint:

The modes of payment are generally as follows: The importers on this side generally pay from 50 to 75 per cent of the invoice value on receipt of the documents and after having inspected the lumber, in order to satisfy themselves that the shipment is in accordance with the order.

Lumber merchants in Hamburg who are not sharp, however, have suffered considerable losses from shipments for the following reasons: They ordered lumber from the United States, received the documents, paid one-half or three-fourths of the invoice value, inspected the cargo after having paid for the same, and then found that the lumber was not in accordance with the order. They had to sell the best they could, experiencing loss in order to cover the same, being obliged to bring suit against the firms in the United States, and, in every case I have come in contact with, the parties in Hamburg have been losers. This is caused by the expenses connected with the suit or by the firms in the United States compromising in such a manner that the firms here were obliged to accept the compromise. I know of one case in Hamburg in which the firm has lost about $14,280 in this way.

During the calendar year 1898, German statistics give the following figures on importation of wood from the United States:

Description.	Quantity.	
	Kilograms.	*Pounds.*
Wood for building and manufacturing, in the log..	21,797,300	48,054,328
Oak dowels	32,411,800	71,455,054
Hard wood:		
In the log	7,289,700	16,070,668
Sawed	72,400	159,613
Timber and lumber, sawed	300,452,900	662,378,663
Cedar	1,684,400	3,713,428

In 1897, Hamburg alone imported from the United States walnut valued at $1,262,178.

The American exporter would rather export sawed lumber than logs, for it keeps his mills running and gives his laborers employment. For the same reason, the German sawmill owners desire the logs. To the commission agent in Hamburg and Bremen it is immaterial, for he handles only that lumber which will sell best at the auctions or on the market generally. The above table shows that Germany buys fully ten times more sawed lumber of the United States than logs.

The kinds of foreign lumber which find a ready sale in Germany are black walnut, poplar, and oak. The logs which the sawmills buy readily are usually not less than 24 inches, but run to 3 to 4 feet in diameter. The length is from 10 to 17 feet. The logs should have as few knots and as little sap as possible. Last fall, such logs brought, c. i. f. Hamburg, about $17.85 per cubic meter (35.316 cubic feet). The average price of white-oak lumber of 2 inches, 1¾ to 1½ inches in thickness, and 6 to 11 and 12 inches in width, in Hamburg and Bremen last fall was 60 cents per cubic foot. The price of poplar lumber is about the same. I understand that the freight rates have been considerably advanced during the winter, thus increasing the price of American woods; but these will return to their normal channel this summer. If our exporters would only put the very best lumber on the market in Germany, much higher prices would be realized.

The inland firms which buy of Hamburg and Bremen agents usually get from 3 to 6 months' credit. These bills are often discounted at a bank. Cash is frequently paid for a good discount. The bill discount during the winter has been about 5 per cent per annum. This high rate has been due to the tightness of the German money market during the past six months. Money, however, is expected to become much cheaper this year. Lumber dealers prefer to take notes, for the reason that they can more easily persuade people to buy.

The inland cities of Germany are capable of consuming much more lumber than at present. This is especially true of logs. I personally know of German sawmill owners who would cheerfully give space and shelter gratuitously to any American firm of exporters who would be willing to keep a stock of first-class logs on hand. They themselves would at once buy large quantities. The American consignor would be at liberty to sell to anyone else in the Empire. The best policy would be to appoint some responsible agent to take charge of the stock and to sell for 5 per cent commission.

The Elbe and Rhine rivers afford admirable water routes to some of the central cities of the Empire. The lumber industry in Germany is continually on the increase. New pulp mills are springing up all through the Erzgebirge, and I presume it is equally true in other parts of the Empire where soft woods are accessible. The sawmills of the Empire can not get enough hard-wood logs. The brush factories of Schönheide and the musical-instrument factories of Klingenthal and Markneukirchen consume annually great quantities of imported woods. The projected German navy will during the next decade constitute a splendid market for American hard woods.

I would recommend to our lumber exporters the plan of making direct shipments to some of the inland cities, keeping a good supply of logs on hand and selling as occasion demands from stock. It would be well to have every shipment of logs officially measured and examined by some proper party connected with the local city government. Much friction might be done away with in this way.

The future import of sawed lumber to the German Empire must steadily decline in favor of logs, for the reasons already given. If any firms should feel interested in the subject, I will gladly answer inquiries as to inland freights, establishing connections, etc.

ERNEST L. HARRIS,
Consular Agent.

EIBENSTOCK, *June 26, 1900.*

BERLIN EXHIBITION OF FIRE-SAVING APPARATUS.

Ambassador White sends from Berlin, June 27, 1900, description of the exhibition of fire-preventing and fire-saving arrangements, to be held in that city during the months of June and July, 1901. The regulations read:

I.—LOCALITY AND DURATION OF THE EXHIBITION.

The international exhibition for fire-preventing and fire-saving arrangements will be held from six to eight weeks on the place of military exercises at Moabit, during the months of June and July; but the managers of the exhibition are entitled to modify this term of duration.

II.—ORGANIZATION AND TREASURERSHIP.

The managing committee of the international exhibition for fire-preventing and fire-saving arrangements are intrusted with the management and organization of the exhibition. The applications must be made to the exhibition offices and addressed to Mr. Emil Jacob, managing director of the exhibition.

The forms of application must be sent in as soon as possible and by the 1st of October, 1900, at latest. The managing committee can, however, shorten or prolong this term.

All the payments destined for the exhibition must be made payable to the managing committee and addressed to the treasurer, Dr. Paul Schwabach, British consul-general (of the firm S. Bleichroder), No. 62–63 Behrenstrasse, Berlin W.

III.—ACCEPTANCE OF ARTICLES FOR THE EXHIBITION.

Only articles which answer the purpose of the exhibition will be accepted. This acceptance will depend on the result of an examination to be made by the managing committee. The decision of the committee will be communicated to applicant in writing.

If the articles are not accepted, the payments made for rent will be refunded.

IV.—PREMIUMS.

State premiums, prizes, and medals will be given for excellent productions. Full particulars will be given in due course.

V.—RENT OF SPACE OCCUPIED.

The following charges per square meter (10.7642 square feet) area of ground will be made:

Space.	1. Closed-in spaces.		2. Covered spaces.		3. In the open air.	
	Marks.		*Marks.*		*Marks.*	
1 to 10 square meters	30	$7.14	21	$4.99	14	$3.33
11 to 50 square meters	25	5.95	18	4.28	12	2.85
51 to 100 square meters	22	5.23	15	3.57	11	2.61
101 to 200 square meters	21	4.99	13	3.09	9	2.14
201 to 300 square meters	20	4.76	12	2.85	8	1.90
301 to 400 square meters	18	4.28	11	2.61	7	1.66
401 to 500 square meters	15	3.57	9	2.14	6	1.42
501 to 700 square meters	12	2.85	7	1.66	5	1.19
Above 700 square meters	10	2.38	6	1.42	4	.95

Further, for localities which are free or open, additional payment as follows:

Space.	Free or open on all four sides.	Free or open on three sides.	Free or open on two sides.
	Per cent.	*Per cent.*	*Per cent.*
1 to 10 square meters	60	30	15
11 to 50 square meters	30	15	7
51 to 100 square meters	20	10	5
101 to 200 square meters	10	5	2
201 to 300 square meters	7	3	.....
301 to 500 square meters	5	2	.....

If special space is claimed for alleys or passages, a charge will be made therefor. Every fraction of a meter will be charged full; at least 50 meters will be charged for rent. The area of walls, up to a height of 4 meters (13.12 feet), will be charged at half the price of the area of the ground.

Cabins, expanse of water, and localities or spaces under ground will be charged for according to special arrangement; this also applies to rent for space occupied by apparatus erected separately.

The amount of the rent as can be stated according to 1, 2, 3, must be paid when sending in the form of application. The final settlement of the rent can only be made after the distribution of the locality. If the exhibitor does not utilize the space paid for, no allowance will be made afterwards.

Steam, water, gas, and electricity will be supplied to the exhibitors as driving power, according to arrangement made with the managing committee of the exhibition.

The exhibitor is held liable, or his articles of goods will be retained as security, for any payments due by him to the managing committee.

As regards the combined display of articles belonging to several exhibitors, the rent of the space occupied by such articles will be charged each exhibitor separately. The managing committee is, however, entitled to make exceptions.

VI.—DECORATION.

Each group must provide for its own decoration, which, however, is subject to the exhibition rules. For the purpose of making the single groups as uniform as possible, a union of all the exhibitors will be organized for each group. Consequently, the exhibitors are compelled to submit to the decisions of the majority of their groups. At the request of the managing committee of the exhibition, the exhibitors are compelled to submit for approval plans, drawing, etc., of the articles to be exhibited.

The articles for the exhibition must be in their places at a date still to be fixed; otherwise the exhibitor will not be allowed to compete for prizes, etc. Moreover, the exhibitor is liable to a conventional fine of 25 marks per square meter ($5.95 per 10.7642 square feet).

If desired, tables will be lent by the managing committee; nondecorated tables at 3.50 marks (84 cents) and the decorated tables at 6 marks ($1.43) per square meter (in addition to the rent charged for the space occupied).

VII.—TRANSPORT, RETURN FREIGHT, DUTY.

Freight, duty, and other expenses in connection with articles destined for the spaces hired in the exhibition are to be paid by the exhibitors. All packages must be provided with address labels, supplied gratuitously by the managing committee of the exhibition. The necessary steps are being taken for obtaining free return freight of the goods exhibited and exemption from payment of duty.

VIII.—DELIVERY AND REMOVAL OF THE GOODS EXHIBITED.

Articles destined for the exhibition, the acceptance of which according to VI commences at the term fixed, must be delivered in proper time. They must be removed within five days after the closing of the exhibition; otherwise the managing committee of the exhibition is entitled to effect such removal and charge the exhibitor with the costs of transport, storage, and packing. The managing committee can not be held responsible for damages, loss, etc.

No article can be removed from its place before the closing of the exhibition without special written permission from the managing committee.

IX.—RIGHT OF SALE.

Exhibitors who wish to sell to the visitors of the exhibition articles of any kind must obtain special permission from the managers of the exhibition. Exhibitors who, without such written permission, effect the sale of articles exhibited or sell articles which are not stated in the contract will be deprived of their locality, and on account of the nonobservance of these regulations the managers of the exhibition will be entitled to remove the said articles at the expense and risk of the exhibitors, and otherwise dispose of the locality, the rent paid therefor being retained by the authorities of the exhibition.

X.—INSURANCE AND GUARANTY.

The insurance of articles against fire will only be effected by the managers of the exhibition at the special request of the exhibitor, who must bear the necessary expenses.

Arrangements will be made for the general safekeeping of the articles; but the managers of the exhibition will not make any compensation in the event of theft, damage, etc. No claims of any kind will be considered in case the exhibition can not take place through force majeure or must be closed before the appointed time.

XI.—KEEPING IN REPAIR AND PUBLICATIONS.

The fitting up, cleaning, keeping in repair, and removal of the articles of the exhibition must be effected by the exhibitors. If desired, this can also be undertaken by the managing committee of the exhibition, against compensation. The cleaning, etc., must be effected during the period when the public is not allowed admission to the exhibition. The articles are not to be covered during the visiting hours of the exhibition. Every exhibitor must distinctly mark his articles with his name and address.

Sketches, drawings, photographs, and other reproductions of the articles exhibited can only be made with the consent of the exhibitor and the managers of the exhibition; the managers may, however, take general views of the exhibition.

The distribution of publications and the posting of placards of any kind may only be effected by permission of the managing committee of the exhibition.

XII.—REPRESENTATION.

The exhibitor must legalize his representative at the exhibition.

XIII.—DISTRIBUTION OF THE LOCALITY.

The exhibitor must submit to the decisions of the managing committee as to the distribution of the locality provided, alterations in the programme, prolongation or shortening of the duration of the exhibition, and other dispositions.

XIV.—VALIDITY OF THE PRESCRIPTIONS.

Every exhibitor must declare, at the time of application or admission to the exhibition, that he accepts as legal all these regulations and the prescriptions still to be issued, as also the rights accruing therefrom; furthermore, that he is not entitled to make any claim on the basis of verbal arrangements.

All complaints and doubts will be decided by the managing committee.

Disputes must be settled in the courts at Berlin, and both parties must legally declare that in all affairs of the exhibition Mr. Emil Jacob, the managing director, residing at No. 65 Holzmarktstrasse, Berlin O, is entitled to enter legal actions for the managing committee and to represent the latter in actions entered against the

same. The parties are, however, not entitled to make any claim on the personal property of Mr. Emil Jacob, or any other member of the managing committee, but may only resort to the effects of the exhibition.

GENERAL PLAN.

I.—Organization of the fire brigade.
- (*a*) Clothing and equipments of fire brigades.
- (*b*) Horse equipment.
- (*c*) Dwellings for the firemen.
- (*d*) Apparatus.
  - (1) Extinguishers.
  - (2) Escapes.
  - (3) Apparatus for illuminating the way to and at the scene of fire.
- (*e*) Chemical fire-extinguishing means and machinery.
- (*f*) Water supply.
- (*g*) Firearms.

II.—Assistance in case of necessity and danger.
- (*a*) Ambulance corps.
- (*b*) Relieving persons and animals and transporting same in cases of accident.
- (*c*) Danger caused by water.

III.—Extra-professional work.
- (*a*) Cleaning streets.
- (*b*) Watering streets.

IV.—Fire-protecting means.
- (*a*) Fire-proof-building constructions.
- (*b*) Lightning conductors.
- (*c*) Heating apparatus.
- (*d*) Chimney sweeping.
- (*e*) Fire-protecting apparatus.
  - (1) For dwellings, schools, hotels, churches, hospitals, asylums, etc.
  - (2) For factories.
  - (3) For storehouses.
  - (4) For transporting purposes.
    - On land.
    - On water.
  - (5) For mines.
  - (6) For electrical plants.
- (*f*) Theaters.
- (*g*) Insurance against fire.

V.—Organizations for the benefit of fire brigades.

VI.—Subjects of instruction, art and literature.

CHEMICAL INDUSTRY OF GERMANY.

Consul-General Guenther writes from Frankfort, June 23, 1900:

German publications in the interest of manufacturers of chemicals generally, and those of coal-tar colors in particular, complain that the new commercial treaty between the United States and France reduces the tariff on French coal-tar colors from 30 per cent ad valorem to 24 per cent, while such German colors will have to

pay 30 per cent, Germany not receiving this benefit unless she makes concessions to the United States. Attention is called to the fact that in consequence of protective duties of the United States, the coal-tar-color industry is being built up there, which will greatly injure Germany, and every effort should be made to have the duties lowered, in order to avoid the establishment of American coal-tar-color factories and to facilitate German exports.

German interested circles advocate free entry of chemicals into Germany, and if possible free trade in those articles by other countries, or at least greatly reduced duties. Such a policy would benefit this country greatly. When one looks at the statistics of German imports and exports of chemicals, it is not surprising that the policy advocated finds much favor.

Articles.	Imports.		Exports.	
	1898.	1899.	1898.	1899.
	Met. tons.	*Met. tons.*	*Met. tons.*	*Met. tons.*
Aniline oil, aniline salts, etc.	728	1,112	12,360	12,275
Aniline and other coal-tar colors	1,028	1,021	19,712	22,704
Ethers of all kinds, except sulphuric:				
In barrels	3	1.8	129	105
In bottles	2	2.2	106	132
Sulphuric ether	0.8	5.5	497	888
Chloroform	0.7	1.3	121	86
Ethereal and alcoholic essences	35	44	137	140
Fusel oil	3.9	0.5	301	236
Ultramarine	49	61	4,120	4,310
Ferrocyanide of potassium	46	8.2	469	656
Cyanide of potassium	1.9	3	1,906	1,645
Ferrocyanide of soda	44	23	338	439
Oxalic acid and oxalate of potassium	87	15	2,353	2,398
Caustic potassium	165	132	8,529	10,005
Caustic soda	579	1,267	5,075	3,884
Alum	152	141	22,764	25,485
Baryta, white	2	3.6	1,741	2,251
Chloride of lime	154	323	16,813	17,422
Explosives	36	22	3,134	3,248
Soda, bicarbonate	524	514	37,106	40,566
Potassium	1,486	1,736	13,455	11,916
Soda, crystallized	217	92	1,941	1,704
Silicate of soda (liquid glass)	164	209	5,174	6,126
Antifebrine	4.5	7.6	21	32
Antipyrine	1.4	5.3	17	22
Arsenical preparations	7.5	32	694	925
Baryta salts, not specially enumerated	81	59	2,336	2,274
Benzoic acid	77	96	603	668
White lead	822	703	16,473	16,359
Sugar of lead and vinegar of lead	129	71	1,118	1,403
Bromium	None.	0.2	96	108
Bromide of potassium and other bromides	6.7	5.5	310	260
Quinine	3.6	14	200	210
Chloride of calcium	123	197	1,339	739
Chloride of potassium	421	443	96,235	101,045
Chloride of magnesium	'52	29	14,236	14,238
Chrome alum	0.4	78	1,013	821

Germany proposes free trade in chemicals, but, on the other hand, for instance, a high duty on boots and shoes, because, as it is stated, American competition in these goods is keen, and Germany needs to protect her shoe industry against the older and highly developed one of the United States.

In a report dated June 20, the consul-general sends additional statistics, showing the value of certain exports of chemicals and the part taken by the United States.

Chemical exports in 1898.

Articles.	Total.		To the United States.	
	Marks.		*Marks.*	
Alizarin	16,900,000	$4,222,000	2,600,000	$618,000
Alkaloids and their salts, antipyrine and antifebrine	4,800,000	1,142,000	900,000	214,000
Ammonia, sulphate	700,000	166,000	(*)	.....
Anil and other coal-tar preparations	72,000,000	17,136,000	15,400,000	3,665,000
Aniline oil and salts of aniline	13,600,000	3,256,000	4,400,000	104,000
Quinine	6,600,000	1,570,000	2,600,000	618,000
Potassium, chlorate	13,500,000	3,213,000	7,400,000	1,761,000
Potassium, cyanide	3,900,000	928,000	(*)	.....
Ethereal essences	7,200,000	1,713,000	(*)	.....
Acetic acid and vinegar	3,000,000	714,000	(*)	.....
Glycerin, purified	5,600,000	1,332,000	(*)	.....
Podine, salts of	3,400,000	809,000	(*)	.....
Potassium, sulphate	3,400,000	809,000	2,100,000	491,000
Abraum salts	7,000,000	1,666,000	3,800,000	904,000
Gunpowder	5,200,000	1,237,000	(*)	.....
Soda, calcined	3,300,000	785,000	(*)	.....
Explosives	3,700,000	880,000	(*)	.....
Superphosphates	4,500,000	1,071,000	(*)	.....
Acid, tartaric	3,200,000	761,000	(*)	.....
Zinc, oxide, Lith	7,100,000	1,689,000	(*)	.....
Total	188,600,000	44,709,000	39,200,000	8,383,000

* Not given.

SCARCITY OF CANNED MEATS IN GERMANY.

The naval authorities at Kiel are compelled to buy canned meats (whose import was to be excluded on account of alleged impurities dangerous to the health of consumers) at a high price in foreign countries, because of the inability of Germany to supply home demands.

In consequence of this exclusion, the provisioning of troops for China has been greatly interfered with. The "Intendantur" (commissary department) at Kiel has been trying in vain to buy boiled and corned beef for supplying the navy, because all the stock that remained of canned meats had already been subject to the levy of a duty, and it will therefore be necessary for it to turn to English and other foreign markets in order to obtain necessary quantities.

Another evidence of the present anomalous condition is contained in an article in the Sarö-Amtstidene of July 6, 1900, published at Slagelse, Denmark. A translation reads:

As our readers know, a German squadron is about to be dispatched to China. It is interesting to note that the Slagelse export slaughterhouses Dana have received an order from the German Government for sausages to the amount of 10,000 pounds for use on the Chinese squadron. This order is to be delivered as soon as possible, and a representative of a large sausage factory in Kiel is here to superintend the packing.

A ship with another order of sausages is due to arrive in Hamburg to-day. Same is to be inspected by Hamburg or Berlin experts, as the Dana Company was not satisfied with the expert from Odense.

Another evidence of the straits to which Germany is brought in this connection is shown in the following facts, culled from an article in the Hamburg Fremdenblatt of July 10, 1900:

The possibility is widely discussed of importing the stock of canned meats now in the various free harbors of Germany with the additional consideration of duty only, for the supply of the navy, before the "Fleischbeschaugesetz" receives the imperial sanction.

The proportionately higher prices should not come into consideration where the urgent delivery and the purity of the material are the principal factors; however, on the other hand, it is of the utmost importance to begin to think seriously of erecting our own plants for such goods, in order to make the supply of our navy as independent as possible of foreign manufacture. This seems almost an imperative necessity.

The army authorities own two large meat-preserving plants—one at Spandau and one at Mainz. We do not know whether the navy ever received provisions from these factories; however, at the time of the occupation of Kyao-chau, considerable comment was made upon the fact that American canned meats were largely used in supplying the German navy. It is known that canned and preserved meats are indispensable in supplying the army and the navy, and it is no less plain that our plants in Spandau and Mainz are far from able to furnish the requirements. There is an urgent necessity for creating new plants and extending the old ones to such a degree that the provisioning of the army and navy can be accomplished by the home industry alone.

The first condition for the establishment of adequate plants is a great market which offers constant facilities for buying the raw product throughout the year. The second condition would be the proximity of a large city, in order to facilitate the sale of products left over from the slaughtered animals, which are not necessary to the canning and preserving industry, but which can nevertheless be utilized. The factories at Spandau and at Mainz are at present in operation only during the winter months. New plants supplying an output of considerable size throughout the whole year would have to be operated on a more economical scale and be allowed to use minor grades of raw material in order to compete with the foreign market.

Besides this field, the rapid extension of our merchant marine and passenger traffic demands the building up of this industry. Above all, we must save our navy from temporary embarrassment.

Comment is unnecessary.

HUGH PITCAIRN,
Consul.

HAMBURG, *July 10, 1900.*

AGRICULTURAL FAIR AT COBURG.

At the Coburg agricultural fair, held from the 9th to the 11th of June, 1900, there was the largest and best exhibit of American agricultural implements, etc., ever seen in this part of Germany. The following well-known firms were represented: Milwaukee Harvester Company, Wisconsin; McCormick Harvester Company, Chicago, Ill.; Deering Harvester Company, Chicago, Ill.; Plane Harvester Company, Chicago, Ill; D. M. Osborne, Auburn, N. Y.; W. A. Wood Harvester, Hoosick Falls, N. Y.; Champion Harvester, Chicago, Ill.; Buckeye Harvester, Akron, Ohio; Adriance Buckeye, New York; Acme, Pekin, Ill.; Worcester Buckeye, Massachusetts.

Two German makers exhibited poor imitations of well-known American machines. It seems too bad that we can not prevent outside countries from using and abusing our patterns.

Adaptability to the needs of the district where an article is sold is an essential element of success. An American exhibitor of binders and mowers at the Frankfort show in 1899 had a very simple tool sharpener lying unnoticed for some time. It happened to attract attention, and dealers crowded round to see its practical work, with the result that hundreds were ordered from all parts of the country. When the German dealer is asked why he sells more American goods than those of his own country, he will reply: "I sell German goods when I can; but the people know and want American ones, and, rather than lose a sale, we are forced to sell the American products." It is well known in Europe that where first-class American agricultural implements are once well introduced, the people can not be prevailed upon to buy anything else.

OLIVER J. D. HUGHES,
Consul.

COBURG, *June 21, 1900.*

OATMEAL IN GERMANY.

A movement is inaugurated, says the Hamburgische Börsenhalle of July 11, 1900, for an increase of duty on oatmeal. A translation of the article reads as follows:

It is contended by the German oatmeal millers, in a communication to the Imperial Department of the Interior in which they demand an increase of duty on oatmeal from 7.30 marks ($1.73) to 15 marks ($3.57) per 100 kilograms (220.46 pounds), that the importation of prepared oats from America is constantly increas-

ing and that the production of oat products is an important by-product of the German milling industry. At present, oatmeal milled in Germany, although with comparatively primitive facilities, is quite able to compete with the foreign product. The production of prepared oats in America, by virtue of its being lucrative as a by-product, has increased rapidly and has attained enormous proportions, particularly because these preparations can be manufactured from the best quality of oats, which are abundant there. The millers furthermore claim that they are quite able to make themselves entirely independent of American imports, if only the necessary increase of duty be accorded in their favor; and they also contend that these oat preparations serve to a considerable extent for medical purposes, and that therefore the proportionately higher price should not be of great consequence.

This latter statement is thoroughly false. Oatmeal, in fact, is an article of nourishment the consumption of which is often prescribed by medical men as good for invalids and convalescents. However, on account of this property, it is very often used outside of the sphere of medical purposes for children and delicate people; therefore, the contention of the millers that the higher price is of no great consequence ought to be sharply rejected.

The statistics concerning the import and export of prepared oats are not at all clear. Oatmeal is classified with all other kinds under the simple heading of meal. Under this heading (No. 677 of the official list of imports and exports—"Waaren Verzeichniss"), these goods are classed as follows:

Year.	Quantity.	Value.	
Total import into Germany.	*Tons.*	*Marks.*	
1895	4,390	800,000	$190,400
1896	4,973	900,000	214,200
1897	6,483	1,100,000	261,800
1898	6,624	1,300,000	309,400
1899	7,044	1,400,000	333,200
Total export from Germany.			
1895	21,675	3,500,000	833,000
1896	21,590	3,600,000	856,800
1897	35,146	7,000,000	1,666,000
1898	36,183	7,800,000	1,856,400
1899	29,639	6,300,000	1,499,400
Import from the United States.			
1895	790	.....	.....
1896	1,415	.....	.....
1897	2,611	.....	.....
1898	3,434	.....	.....
1899	3,567	.....	.....
Export to the United States.			
1895	220	.....	.....
1896	28	.....	.....
1897	17,965	.....	.....
1898	17,961	.....	.....
1899	10,994	.....	.....

How much of this meal may be oatmeal in particular can not be absolutely ascertained (even the new classification of the last German tariff does not mention oatmeal separately); at any rate, no conclusion can be drawn from these statistics which might bear out the contention of the German oatmeal millers that they need a higher import duty on foreign oatmeal—particularly the American product—as a protective duty.

From the above-quoted article, it is evident that the agrarian influence is endeavoring to impose a high protective duty on meal to exclude the American products.

HUGH PITCAIRN,
Consul.

HAMBURG, *July 12, 1900.*

GERMAN IRON WORKS AT BRUCKHAUSEN.

The Deutscher Kaiser Company, at Bruckhausen-on-the-Rhine, has iron works of magnitude. The ground area is about 1,500 acres. The proprietors were originally a coal-mining company, holding about 25 square miles of coal fields, the output of which is placed at 3,300 tons daily. The first portion of the iron plant, constructed in 1890, was the Siemens' steel works, containing seven basic-lined furnaces. Blast furnaces and basic Bessemer converters were added in 1895. The completed plan includes six blast furnaces 82 feet high. Two compound twin-blowing engines with 6½-foot cylinders and 5-foot stroke are provided for each furnace, whose daily output is from 250 to 300 tons of basic metal. The coking plant includes 256 ovens, of which 188 are at work. The total output will be about 30,000 tons of coke monthly, with 1,200 tons of tar, 400 tons of sulphate of ammonia, and 300 tons of benzole as by-products. The Bessemer plant includes four 15-ton basic converters, with a present output of 20,000 tons of ingots monthly, and also a cogging mill in direct communication with the rolling mills, arranged for the conversion of ingots into rails, billets, or medium-sized joists at a single heat. There are six rolling mills, with a total capacity of 30,000 tons of finished iron and steel per month. The accessory machinery is for the most part served by electric motors, the generators being supplied with steam from boilers fired with blast-furnace gas. Nothing has been spared in the way of equipment to make these iron works the most productive in the Rhenish Westphalian district.

RICHARD GUENTHER,
Consul-General.

FRANKFORT, *June 19, 1900.*

MANUAL TRAINING IN GERMANY.

There exist at present in Germany, distributed in 605 places, 861 schools and institutes wherein manual training is carried on in 1,514 workshops. Of this number, 836 schools and institutes conduct the training on a pedagogical basis. Prussia has 570 manual-training schools. The 1,514 pupils' workshops comprise 286 independent

manual-training schools and 238 public schools, of which 16 are auxiliary schools where the work is obligatory, 17 are middle-class schools, 41 are high schools (made up of 8 gymnasiums, 6 technical gymnasiums, 12 technical and technical high schools, and 15 boarding schools), 7 are preparatory institutes, 26 are teachers' seminaries, and 93 are boys' asylums; while the remainder consists of various kinds of private educational establishments.

Five hundred and thirty-five workshops are devoted to wood carving, 527 to working in cardboard, and 356 to the carpenter's bench. Of these, 68 are closely connected with wood carving, 77 with preparatory roughing-out work, 35 with metal work, 28 with country timbering, 11 with wood and metal turning, and 11 with modeling in clay.

Over 2,200 German teachers have been taught to become instructors in manual training. Of these, 954 were taught in Leipzig and 1,250 acquired training in 33 places in other parts of Germany.

RICHARD GUENTHER,
Consul-General.

FRANKFORT, *June 19, 1900.*

GERMAN ARMOR-PLATE MANUFACTURE.

In the report of the committee on naval affairs of the German Parliament, a letter was read from Baron von Stumm, one of the armor-plate manufacturers, which he said he was compelled to write in consequence of statements in the newspapers.

The business profits of the Krupp and Dillinger works on armor plates, he said, had been stated at 176,000,000 marks ($41,888,000). The new armored ships required 49,000 tons of armor material at a cost of 113,000,000 marks ($26,894,000). Therefore, even if it were taken for granted that half of the price constituted a clear profit, this would only amount to 56,000,000 marks ($13,328,000), which, divided over sixteen years, would be 3,500,000 marks ($833,000) annually, or 1,750,000 marks ($416,500) for each concern.

The manufacture of armor plate, he continued, was very difficult; within twenty years the method of manufacturing has had to be renewed three times. The least mistake results in rejection, which imposes heavy loss. For years, the prices for armor plates had not been raised, although wages and cost of raw material had doubled.

In answer to this letter, it was argued that the total demand for armor plate, based upon the estimates for new vessels and remodeling, for the next sixteen years would amount to the sum of 260,000,000 marks ($61,880,000), not to 113,000,000 marks ($26,894,000). If,

therefore—as would seem to be admitted in the letter—half were net profit, this would amount to 130,000,000 marks ($30,940,000), which would be derived by only two firms. A net profit consisting of half of the contract price was exorbitant. A termination of the monopoly, either by the establishment of works by the Empire or by participation of reliable competitors, was urged. The inquiry was also made whether the nickel-steel armor of those vessels which had to be replaced could not again be used.

The representatives of the Government replied that an answer to this question could not be given at present, inasmuch as the condemnation of old armored ships so far had not applied to nickel-steel armored ones, but only to common iron-armored ships, and these armors are no longer used. The monopoly question was of great importance to the navy department; such monopolies existed, not only for armor plate, but also for guns and ammunition. The manufacture by the Empire would be an enormous undertaking; furthermore, it was not certain whether the profits on armor plate were really as high as they appeared, when the capital invested is taken into consideration. The aim of the department was to create competition and to break the monopolies.

The speaker was of the opinion that this could be done, all the more if by the passage of the bill permanent business for shipbuilders were guaranteed.

One of the members said that it had been recently stated in Parliament that England was building her ships 20 per cent cheaper than other countries. If this were so, it would make a difference of 248,000,000 marks ($59,024,000) to Germany on her new and remodeled ships. The representative of the German Government replied that the reason might be that the English shipyards were well appointed in every particular, that material and coal were somewhat cheaper in England, and especially that keener competition existed in England between the shipbuilders.

RICHARD GUENTHER,
Consul-General.

FRANKFORT, *June 1, 1900.*

MINING AND METALLURGICAL PRODUCTION OF GERMANY.

Consul-General Guenther, of Frankfort, under date of June 16, 1900, writes:

A statement compiled by the imperial statistical office of the mining and metallurgical production of Germany and Luxemburg

in 1899 shows the production of some of the more important minerals and metals to have been as follows:

Articles.	1899.	1898.
Mining production.	*Metric tons.**	*Metric tons.**
Coal	101,621,866	96,309,652
Lignite	34,202,561	31,648,898
Iron ore	17,989,665	15,901,263
Zinc ore	664,536	641,706
Lead ore	144,370	149,311
Copper ore	733,619	702,781
Metallurgical production, etc.		
Raw iron	8,117,594	7,288,343
Zinc, in block, etc	153,155	154,867
Lead, in block, etc	129,225	132,742
Copper, in block, etc	34,626	30,695
Further manufacture of raw iron.		
Cast iron of second fusion	1,720,443	1,535,306
Welded iron and welded steel (Schweisseisen).		
Blooms and rails	78,904	82,584
Finished manufactures	1,103,740	1,056,672
Cast iron and cast steel (Flusseisen).		
Ingots	456,815	441,601
Blooms, billets, sheets, etc	1,042,597	986,572
Finished manufactures	4,791,022	4,320,609

*1 metric ton=2,204.6 pounds.

THE STEEL PRODUCTION OF THE WORLD.

The steel production of the most important countries is estimated by German authorities for the year 1899 at 26,841,755 tons, against 23,866,308 tons in 1898; an increase of 2,975,447 tons. The cast-iron production is estimated at 40,000,000 tons, 4,000,000 tons more than in 1898. Of these 40,000,000 tons, 28,000,000 tons, or 70 per cent, has been used in the production of steel. A comparison of the ten most important countries results as follows:

Country.	1880.	1898.	1899.
	Tons.	*Tons.*	*Tons.*
United States	1,287,983	8,970,772	10,702,209
Germany	624,418	5,734,307	6,290,434
Great Britain	1,341,690	4,638,345	4,933,010
France	388,894	1,441,633	1,529,182
Belgium	132,052	653,130	729,920
Austria-Hungary	134,218	860,000	950,000
Russia	295,568	1,153,000	1,250,000
Sweden	28,597	265,121	257,000
Italy	.....	60,000	80,000
Spain	.....	90,000	120,000
Total	4,233,420	23,866,308	26,841,755

J. F. MONAGHAN,
Vice and Acting Consul.

CHEMNITZ, *June 16, 1900.*

RAILWAYS IN SPAIN.

On the 1st of January, 1899, there were 12,984 kilometers (8,068 miles) of railways in the Kingdom of Spain, of which 11,011 kilometers (6,842 miles) were of the standard gauge—1.67 meters (5 feet 6 inches); 1,965 kilometers (1,221 miles) were of various narrow gauges from 60 centimeters to 1 meter (24.6 to 39.37 inches); and there was one "cremallera" or cog-wheel road of 8 kilometers (5 miles).

The principal railway corporations are:

(1) The Northern Railway Company of Spain, having 3,684 kilometers (2,289 miles), equipped with 662 locomotives, 36 saloon cars, 366 first-class cars, 400 second-class cars, 897 third-class cars, 192 miscellaneous cars, 566 baggage cars, 9,545 box and crate cars for merchandise and cattle, and 2,734 open or platform cars, making a total of 14,726.

(2) The Madrid-Zaragoza-Alicante Railways Company, having 3,665 kilometers (2,277 miles), equipped with 392 locomotives, 31 saloon cars, 187 first-class cars, 179 second-class cars, 464 third-class cars, 102 miscellaneous cars, 340 baggage cars, 3,497 box and crate cars for merchandise and cattle, and 3,952 open or platform cars, making a total of 8,752 cars.

(3) The Andalusian Railways Company, having 1,108 kilometers (688 miles), equipped with 147 locomotives, 145 saloon cars, 78 first-class cars, 105 second-class cars, 256 third-class cars, 32 miscellaneous cars, 126 baggage cars, 1,082 box and crate cars for merchandise and cattle, and 1,830 open or platform cars, making a total of 3,654 cars.

(4) The Tarragona, Barcelona, and France Railways Companies, operated by the Madrid-Zaragoza-Alicante Company as the Catalan division, equipped with 154 locomotives, 15 saloon cars, 70 first-class cars, 132 second-class cars, 269 third-class cars, 34 miscellaneous cars, 75 baggage cars, 3,422 box and crate cars for merchandise and cattle, and 147 open or platform cars, making a total of 4,149 cars.

The four systems above named had 1,355 locomotives out of a total of 1,835, and 31,296 cars out of a total of 40,197; the balance (480 locomotives and 8,901 cars) was divided among fifty smaller roads.

All standard (5 feet 6 inches) railways diverge from Madrid, either directly or by continuations from junctions on the main lines, and all railways are invariably measured in a direction from Madrid.

There were forty-one lines devoted to carrying ores, coal, and minerals, which do not carry passengers.

From the mountainous character of the country and the consequent expense of construction, railway development in Spain has been slow. The Government, however, has been very liberal in subsidies to the larger lines, nineteen companies having received the equivalent of about $64,000,000. The principal subsidies were given to the Northern Railway (about $31,000,000), to the Madrid-Zaragoza-Alicante (about $11,000,000), the Southern Railway ($6,000,000, this being the largest subsidy per mile of any road in Spain), the Medina del Campo Railway (about $5,600,000), the balance, from a few thousand dollars up to some $2,600,000, being divided among numerous small roads.

Madrid, as the center of this railway system, is situated at an elevation of only 655 meters (about 2,149 feet) above the level of the sea; but the mountain heights between Madrid and the seaports impose steep grades, and in many places long detours have had to be made, all of which, with a gauge of 5 feet 6 inches and the consequent friction, makes operation of the roads very expensive and the rates of transportation very high. The tunnels are numerous, some being large, and the bridge work in many places is upon an expensive scale.

The principal seaports are distant from Madrid, viz: Barcelona, 685 kilometers (425⅝ miles); Malaga, 635 kilometers (394½ miles); Bilbao, 551 kilometers (342⅜ miles); Cartagena, 525 kilometers (326¼ miles); Santander, 503 kilometers (312½ miles); Valencia, 490 kilometers (304½ miles); and Alicante, 455 kilometers (282¾ miles).

It will be observed that were it not for the mountain ranges intervening, the average grades from these seaports to Madrid would be very slight.

There are many concessions held from the Government for projected lines and branch lines which remain without even a commencement of work, owing to the evident expense of the construction.

During the year 1899, there were eleven lines of 5-foot-6-inch gauge in construction, and about 497 miles more under concession; there were 1,036 kilometers (about 643¾ miles) of narrow gauge authorized, and twenty-one lines in construction; there were 1,593 kilometers (981 miles) of 5-foot-6-inch gauge and 802 kilometers (498.34 miles) of narrow-gauge railways recorded either as paralyzed or as not having commenced work of construction.

It is estimated, official figures not being obtainable at present, that in 1899 there were only 63 kilometers (39.14 miles) of 5-foot-6-inch-gauge railway and 116 kilometers (72.08 miles) of narrow-gauge railway opened for operation, making a total of, say, 111 miles.

Numerous new concessions have been granted for construction

of narrow-gauge railways in the iron-ore districts and coal regions. Those in the iron-ore districts are in general given to private companies; those in the coal regions are given to both private companies and to individuals who seek to sell to promoters or incorporators, and it is said that the exorbitant price of coal is an inducement for investors, who are readily taking up such operations. Continental and English and Scotch ironmasters and capitalists have in the last few years bought extensively of iron ore and coal properties in Spain and are expending large sums of money in railways to transport the products to the main lines or to the seacoast.

It is confidently predicted that the exports of iron ore in 1900 will reach 10,000,000 tons, or 2,000,000 tons in excess of 1889; and the production of coal for consumption in the country, stimulated by the very high prices of foreign coal, is increasing at a rapid rate.

Such are some of the factors in the consideration of railway development in Spain, which in the future, it would appear, must be in the narrow gauges; and if the Government protects such operations from illiberal exactions, these will increase rapidly with enormous benefits to the country and handsome returns to the proprietors.

Geologically, Spain is perhaps as rich in its metallic and mineral stores as any country in the world according to its area, and these can be utilized only by affording transportation by railways. Chief among such resources may be mentioned antimony in ten districts, anthracite in five districts, arsenic in five districts, asphalt in three districts, mercury in nine districts, sulphur in eight districts; copper, cobalt, and nickel in twenty-eight districts; iron ore in thirty districts, coal in nine districts. And there are lignites and manganese mines and marble quarries yielding the finest qualities and some of the most beautiful colors, which may be seen in many churches and public buildings. Cupreous and iron pyrites exist in enormous quantities. Silver and silver lead are important. Zinc is abundant, and wolframite, a metal now in demand at high prices in the manufacture of Bessemer and open-hearth steel for special purposes, exists in four districts.

The laws governing the construction and operation of railways are perhaps quite as fair in their apparent intent and purpose as in any continental country; but the execution of the laws and the supervision of railways of industrial character might be modified.

I wished to embody in this report reliable information as to the character of the locomotive power, cars, and appurtenances; as to their construction, relative dead weights and carrying capacity, fuel consumption, wages of employees, etc., but official information is not obtainable at this time.

The speed of passenger express trains on the main lines is officially announced at from 23⅝ to 27 miles per hour, the latter being the speed of the "Sud Express" between Madrid and Hendaya over the Northern Railway; the next service approaching this speed is that between Valencia and Tarragona, which is 26½ miles per hour.

The passenger rates are high; the first-class fare, for instance, from Madrid to Hendaya, a distance of 393⅓ miles, is the equivalent of $14.05, or about 3.6 cents per mile; and the extra charge for the Sud Express ticket is 33⅓ per cent in addition to the first-class ticket. The second-class fare for the same service is the equivalent of $10.66, and the third-class $6.23, approximating, respectively, 2¾ and 1½ cents per mile. While some roads have higher fares per mile, those given are the average on the most important lines in Spain.

Transportation rates on iron ore, which information is of interest to Americans, may be stated, without details, for various roads at an average of about 2.4 to 2.5 cents per ton per mile. These rates are only to the official terminal city or town station; where tracks are extended to the port, there are additional charges for cars to be sent to the port, or in case no track goes to the port, the material must be carted at the owner's expense.

Except at Bilbao, Huelva, and one or two other places, the railway companies have nothing of what we know as facilities for shipment from cars to vessels. It is just to say, however, that such improvements are contemplated at other ports, and it is hoped will soon materialize.

DWIGHT T. REED,
Vice-Consul.

MADRID, *June 30, 1900.*

REPORT OF FRENCH STEAMSHIP LINE.

Consul Thackara transmits from Havre, July 6, 1900, statement of the receipts and expenditures of the Compagnie Générale Transatlantique (French steamship line) for 1899.

It appears that on December 31, 1899, the company's steamers, real estate, personal property at the agencies, material and supplies, amortization deducted, represented a sum of $22,724,585. Three boats were purchased in 1899 and three sold.

The assets were $29,178,287.

Receipts of all kinds, including bounties, were $9,558,542; total expenses, $8,312,765.

The total amount placed to the credit of the sinking fund since the origin of the company was $25,422,965.

From the excess of receipts for the year 1899, amounting to $1,245,777, there was deducted the amount placed to the credit of the sinking and legal-reserve funds—$993,757—leaving as net earnings $252,020, from which a dividend of 16 francs ($3.09) per share was declared.

The emigration from Europe to the United States by the French Line showed a marked increase, notwithstanding the price of tickets was higher. In 1898, there were 16,000 emigrants sent to New York via Havre, while in 1899 there were 23,000. The principal countries from which the emigrants came were Italy, Austria, and Greece. The company having obtained from the Austrian Government permission to establish emigration agencies in that country, it is probable that the number of Austrian emigrants carried by the French Line will still further increase.

On December 31, 1899, the number of ships composing the fleet of the company was 59, of a gross tonnage of 163,254 and developing 170,550 horsepower. Since that date, two vessels have been lost.

The new steamer *La Lorraine* has recently completed a favorable trial trip and is expected to commence her regular sailings in August next. *La Savoie*, launched in March last, is still under construction.

NOTABLE ECONOMIC CONDITIONS IN FRANCE.

During the past two weeks, two very significant economic statements have been attributed to the Minister of Agriculture and the Minister of Public Works of the Republic of France. Both are said to have been made from the tribune in the Chamber of Deputies and are reported in all the daily journals.

The former is said to have declared that the deficiency of the present wheat crop in France, in excess of the surplus remaining over of the crops of 1898 and 1899, will amount to about 30,000,000 bushels.

This is, of course, a matter of importance to the American wheat grower as a factor in the price of his product. Its value as an element of the world's demand for the present crop depends on two things: (1) the reliability of the estimate of the surplus still on hand of the last two harvests; (2) the reliability of the forecast with regard to the amount of the deficiency of the present crop. There are not lacking those who question the accuracy of the estimates in both respects.

The other ministerial statement, which seems to me to be of serious importance to American manufacturers, is the declaration made by the Minister of Public Works in answer to an attack upon

him for having purchased a number of Baldwin locomotives for the use of the State railways of France, to the detriment and discredit of French builders. His defense was that all the metal-working establishments of France had orders for several years to come, so that the only means by which the roads could be supplied with traction power immediately necessary was by purchase from American builders, who alone were able to fill such orders without delay.

If this statement is true, it reveals an economic condition that may be of interest to American metal workers. While France has an immense surplus of unskilled and agricultural laborers, whose wages range from 40 to 60 cents per day, it seems from this statement that the supply of skilled machinists and constructive metal workers is far below the actual demand, or else that the employment of capital in this direction has not kept pace with the extraordinary demands of the last two or three years.

It is probable that both of these causes have something to do with present conditions. The increasingly urgent demand for military service, which requires from one to three years of every able-bodied man's time between the ages of 21 and 28, has now prevailed for nearly a generation, and must have greatly reduced the number and ratio of such laborers. This reduction is naturally most keenly felt in the higher grades of skilled metal workers, whose preparation for constructive work requires a longer period than any other. While the use of mechanical appliances has reduced the number of such workers required to meet a specific demand, it has made imperative a much higher degree of skill for the profitable operation of such tools. It is not improbable that a knowledge of this fact has induced a sort of hesitancy on the part of capitalists to engage in such enterprises. Added to this is the fact that capitalists, not only in France, but in all Europe—except perhaps Germany—have discounted the present demands as not only exceptional, but transitory. They are dreaming that former conditions will again prevail and naturally hesitate to invest in constructive works sufficiently to meet present and future increasing demands. If present conditions continue to anything like the extent now indicated, it is evident that in the line of heavy constructive works France must for a considerable period lag behind other countries and become a consumer of imported goods rather than an exporter of domestic manufactures of this class. This will probably be enhanced by the fact that many of her public works are under control of the General Government or of municipalities which are able to secure a remission of import duties, and so reduce the cost of such imported work and make the public funds yield better results.

This view would seem to be sustained by an experience of this

consulate. During the last two months, an effort has been in progress to induce an American shipbuilder of reputation to establish a branch shipyard here. There seemed to be no reason why a profitable arrangement should not be made. French capitalists are eager to invest in steel ships. The bounty given by the Government is in itself very attractive. The prices offered by parties desiring to own ships were much in advance of what is paid in other countries. The parties interested stood ready to guarantee contracts enough at the outset to keep the works fully occupied for ten years at prices quite in excess of those prevailing in American yards. The builder—a man thoroughly versed in his profession and not lacking financial backing—came, looked the matter over, and said:

> There is but one thing in the way: can I get the steel required for such an amount of work, delivered in such quantities and at such terms as to justify me in contracting to deliver finished work at specified times? I can import the labor if required, but I doubt if I can import steel with a duty of $16 to $18 a ton and build ships at a profit. If I can get French steel delivered on time in the quantities required, I am ready to conclude a contract at any moment.

I am not informed as to the result of his investigation of the matter. I do not even know that it is completed. I only know that the contract is not concluded, and that English, or perhaps German, builders are being solicited to establish branch yards here to build French ships in France.

As it is a matter of many millions, I was naturally anxious that an American builder might see his way clear to make the venture; but if he can not, I trust another may be induced to come, for I think the immediate future will make no more pressing demand on France than for more ships.

ALBION W. TOURGÉE,
Consul.

BORDEAUX, *June 25, 1900.*

NEW FRENCH SPINNING MACHINE.

Although the spinning machines now in use are considered excellent, there is constant effort to bring them to a greater degree of perfection.

The working of the present bobbin frame, one of the preparatory machines, is considered susceptible of improvement. In all preparatory machines, the wool sliver is submitted to twisting and drawing in different directions, to make it regular and sufficiently thin for use in the spinning frame. The sliver in each bobbin machine, after passing through the guide plates into the feed rollers and then into the delivery rollers, should have sufficient resistance to avoid frequent breaking before being wound onto wooden reels.

The problem is to obtain this resistance; in the present bobbin machine, the sliver, in leaving the delivery rollers, passes between condensers corresponding with each head stock of the frame. The condensers are to impart resistance by compression.

These wooden-roller presses are always fitted in pairs, one above the other, and have two movements, one forward movement to make the sliver advance and a twirling motion which winds the sliver spirally for a certain length on the fluted wooden rollers; besides an alternate twirling motion to wind it spirally in an opposite direction for an equal length, and so on.

Although this double motion seems to have solved the problem of imparting resistance, the condensers wear out rapidly and entail expense disproportionate to the result obtained. The system also requires that each bobbin machine shall be adapted to a special kind of wool, and much annoyance is caused by the sizing employed, as well as by the condensers becoming greasy and discolored.

The invention of Mr. Brule, a Tourcoing spinner, is said to be most practical, although he does not consider it perfect. It operates on natural wool of various kinds and different lengths. The principle of the machine is as follows: The sliver, in leaving the delivery cylinder, instead of passing under the condensers, which are done away with, passes into a special funnel, the center opening of which is in the form of a flattened ellipse and works by an alternate rotary motion. By this means, the sliver receives a twist in one way, is immediately wound on the bobbin, receives a twist in the opposite direction for a certain length, is again wound on the bobbin, and so on.

The bobbin thus obtained is perfectly tight and contains a regular and properly twisted thread, much better than that made on machines fitted with condensers. The machine has a greater yield, and the thread is not tied so often and is more even.

The continuous circular movement of the main shaft on the side of the machine is easily changed into an alternate circular movement, which passes on to an axle under the frame and carries the pulleys corresponding with those of the funnel. The thread thus receives by means of the funnel an alternate twist in one direction and then in the other for an equal length, which is regulated by the speed of the delivery cylinder.

The advantages of this system are an increase of production for each machine—since the speed is quickened without injury to the thread—and a reduction in handwork.

It is said that this machine will be exhibited in working order in the near future at the Technical Institute of Roubaix.

W. P. ATWELL,

ROUBAIX, *June 18, 1900.* *Consul.*

AIR SHIP IN SWITZERLAND.

At the invitation of Count Zeppelin, I was present at the trial ascent of his air ship on the afternoon of July 2 at Manzell, on Lake Constance.

At 7 o'clock the great ship, 124 meters (407 feet) long and 12 meters (39 feet) in diameter, containing seventeen separate balloon compartments filled with hydrogen gas, was drawn out of the balloon house securely moored to the float. In twenty minutes all was ready for the ascent, and the ship left its moorings, with Count Zeppelin in charge of one of the gondolas and Mr. Eugene Wolf, the famous explorer, in charge of the other, while Baron Bassus accompanied the party as meteorologist. At the moment of the ascent the wind was blowing at the rate of about 26 feet per second, giving the operators a good opportunity of testing the ability of the air wheels to propel the great ship against the wind. The cigar-shaped structure ascended slowly and gracefully to about 30 feet above the raft. The balances were adjusted so as to give the ship an ascending direction. The propellers were set in motion, and the air ship, which has cost considerably over $200,000, started easily on its interesting trial trip. At first, the ship moved east against the wind for about 2 miles, gracefully turned at an elevation of about 400 feet, and, making a rapid sail to the westward for about 5 miles, reached an altitude of 1,300 feet. It was then turned and headed once more east, and after traveling about a mile against the wind blowing at the rate of 26 feet per second, suddenly stopped; floating slowly backwards 3 miles to the west, it sank into the lake, the gondolas resting safely upon the water. The time of the trip was about fifty minutes; distance traveled, about 10 miles; fastest time made, 5 miles in seventeen and one-half minutes; highest revolution of the propellers, 600 per minute; highest possible revolution, 1,200. The cause of the sudden stoppage in the flight of the ship was occasioned by a slight mishap to the steering apparatus, but the colossus floated gently with the wind until it settled upon the surface of the lake without taking any water. The raft was then brought up and the ship was easily placed upon it and brought back to the balloon house. The weight is 200 centners (22,000 pounds). The cost of filling the balloon with hydrogen gas was $2,000.

JAMES T. DUBOIS,
Consul-General.

ST. GALL, *July 5, 1900.*

TEXTILE-INDUSTRY ENLARGEMENTS IN AUSTRIA.

The cotton-textile business in Austria having been very prosperous in 1899, and the present year promising equally satisfactory results, many noteworthy enlargements of existing factories and building of new ones are just completed, under way, or projected. Some 8,000 cotton looms will be added this year to the number in operation. The product of the spinning factories is also being increased to meet the augmented demand from the weaving machines. In Bohemia alone, the number of spindles will be increased by 150,000, which will produce per annum about $2,000,000 worth of cotton yarn. As Austria has been importing cotton yarn to nearly that value, there is evidently occupation for the new spindles, even should the expectations of increased weaving be disappointed. It is probable, however, that the existing uncertain state of the cotton market, had it appeared sooner, would have checked these improvements; but they have now gone too far to annul the plans therefor.

There is also marked, though not as great, activity in woolen and linen circles in the direction of extensions and new factories. In both these lines of industry, business has been unusually large during the past eighteen months, though profits have relatively declined; but to hold the trade it is found necessary to increase facilities for production, hence the activity here noted, which is specially marked in northern Bohemia.

FRANK W. MAHIN,
Consul.

REICHENBERG, *July 5, 1900.*

ALLEGED "ARTIFICIAL COTTON."

On April 21, 1899, I sent to the Department, under the heading "Artificial cotton,"* a synopsis of an article appearing in a local newspaper. The editor had clipped the article from another paper, whose name he had forgotten. Local spinners said they knew nothing about cotton made from pine-wood fibers and doubted if such a process were possible.

During the past year, press-clipping bureaus have sent me extracts showing that the report was printed in newspapers and trade journals in all parts of the United States and in several European

* See CONSULAR REPORTS No. 226 (July, 1899); ADVANCE SHEETS No. 440 (June 1, 1899).

countries; and scores of inquiring letters from America and Europe were received at this consulate. This attested so deep an interest in the subject that I made exhaustive inquiry until the information was gained that Graf Henckel von Donnersmarck, of German Silesia, had been experimenting with an artificial-cotton process. Instead of replying to a letter which I wrote him, he referred it to a Breslau broking firm, who sent it to a representative in London, who handed it to an American chemist employed by the Cellulose Products Company, whose home office is in Wilmington, Del. The chemist wrote me as follows from London:

I have recently heard rumors of the manufacture of an artificial cotton from spruce wood, but have not been able to trace them to a definite source. Two samples said to have been thus made have lately been submitted to me. One was ordinary middling cotton and the other a long-staple wool, and both were natural products.

In the absence of more definite information, I am inclined to believe that these rumors sometimes have their origin in an obvious attempt to deceive, as in the above cases, but that they more commonly arise from mistaken or unauthorized reports of the work of Mitscherlich in Germany in spinning the unchanged spruce and fir fibers, or that of Chardonnet and of Lehner in the production of artificial silk. This last material, of course, is well known in Europe and has been made the subject of several consular reports.*

It is safe to conclude, from all the evidence obtainable, that attempts have been made to produce artificial cotton, but so far without satisfactory results.

FRANK W. MAHIN,

REICHENBERG, *July 7, 1900.* *Consul.*

COTTON RAGS IN RUSSIA.

To facilitate the export trade of the United States to northern Russia, a direct line of steamers has been established, plying between New York and Newport News and St. Petersburg. But, unfortunately, this line labors under great disadvantages, owing to the lack of sufficient return freights, which, of course, reacts on the prices of the goods exported from the United States. This was very forcibly illustrated recently by one of the largest coal importers of this city, who stated that, in spite of the lower prices prevailing in the United States, the cost of our coals in St. Petersburg was 27s. ($6.56), as against 25s. 6d. ($6.19) for English, which have to bear only 5s. ($1.21) for freight.

* See CONSULAR REPORTS No. 222, March, 1899 (ADVANCE SHEETS No 304, December 21, 1898); CONSULAR REPORTS Nos. 171, 173, 177, 190, and 200.

It is of the highest importance, therefore, to try to meet this difficulty by a careful study of all the articles which might be of interest to our home consumers.

The attention of this consulate has been called to the trade in cotton rags, for which there is a large demand in the United States.

Russia's enormous population is composed almost exclusively of peasants, for whom cotton prints are one of the main articles of clothing, which explains the great development of the cotton industry in the Empire. No country ought better to be able to export rags, and yet, according to the data furnished by the department of commerce and manufactures of the Ministry of Finance, this trade is an exceedingly small one.

The total exports are as follows:

Year.	From Russia.		From St. Petersburg.	
	Poods.	*Pounds.*	*Poods.*	*Pounds.*
1896	331,351	12,965,766	4,887	176,479
1897	313,939	11,986,981	4,478	161,709
1898	317,672	11,543,471	9,445	341,077

According to information obtained from private parties dealing in this article, the bulk of the export is from Poland; and it would appear that if St. Petersburg, in spite of its large population and extensive cotton-mill interests, figures for such a small percentage of the total export, this can only be explained by the fact that the demand has not been directed to the source. I have been told that the purchasers are principally in Hamburg, although it is supposed that they order for American accounts. I am further informed that if a market for Russian rags could be opened up in the United States, large quantities could be supplied on favorable terms. This would not only increase the exports, but also suppress the middleman in Hamburg.

Rags at the present time are very cheap, ranging in price from 60 kopecks to 2.50 rubles (30 cents to $1.27) per pood (36.112 pounds), according to the quality. They are, however, subject to an export duty of 30 kopecks in gold (*i. e.*, 45 kopecks currency, or 15 cents in United States currency) per pood, which the Government levies to protect the domestic paper industry.

It is probable, however, that in spite of this export duty, the price will be lower than can be obtained elsewhere; and consequently it would be desirable to have competent parties in the United States take up the matter and communicate with the dealers here.

Should such transactions give rise to an extensive trade, it is probable that by proper organization on a large scale a still more

remunerative business could be done here in both rags and old rubbers, which latter are already frequently exported to the United States. It would be of interest to know the prices of rags in the United States to determine the prospects of this export.

WM. A. HEYDECKER,
Acting Consul-General.

ST. PETERSBURG, *July 11, 1900.*

MANCHESTER EXPORTS TO THE UNITED STATES.

I submit a statement of cotton yarn exported to the United States during the quarter ended June 30, 1900. The corresponding months of 1899 are also exhibited for comparison.

Month.	1900.	1899.
	Pounds.	*Pounds.*
April	391,701½	129,914½
May	390,032¼	186,893¼
June	363,709¾	206,479
Total	1,145,443	523,286¾

The following table shows the quantity of cotton velvets, cords, and fustians exported hence to the United States during the quarter ended June 30, 1900. The corresponding quarter of 1899 is also exhibited for comparison.

Description.	1900.	1899.
April:	*Yards.*	*Yards.*
Dyed	385,467¾	
Undyed (gray)	830,972¼	
Total	1,216,440	1,107,923
May:		
Dyed	530,147⅜	
Undyed (gray)	961,536	
Total	1,491,683⅜	1,570,520½
June:		
Dyed	710,383½	
Undyed (gray)	663,461¾	
Total	1,373,845¼	1,535,170¼
Grand total	4,081,968⅝	4,213,613¾

WILLIAM F. GRINNELL,
Consul.

MANCHESTER, *July 7, 1900.*

HINTS TO NAIL EXPORTERS.

According to Belgian consular reports, nails to Cape Colony are exported chiefly from Great Britain; wire nails, however, also from Belgium, Germany, and the United States.

Following are the sizes commonly used: Common nails, 1½, 2, 2½, and 3 inches in length; board nails, 2, 2½, and 3 inches long; wire nails, 2, 2½, and 3 inches in length.

Board nails cost 14s. ($3.40) per 100 pounds; 2-inch wire nails cost 16½s. ($4.00); 2½ and 3 inch, 15s. ($3.65) per 100 pounds.

From Great Britain, the nails are exported in kegs; from Belgium, in wooden cases; and from the United States, in sacks. However, there does not appear to be a preference for any particular mode of packing.

The import charges in Cape Colony on nails are:

(1) Import duty, 7½ per cent ad valorem.

(2) Dock charges, 2½s. (61 cents) per ton.

(3) Delivery charges, 4s. (97 cents) per ton.

(4) Brokerage, 1 per cent.

In Egypt, Belgian nails are mostly used, the demand for French and English nails having decreased. Lately, however, the import of German nails seems to be increasing, and the United States also has lately received large orders. The demand is chiefly for wire nails from 2 to 20 centimeters (0.7874 to 7.874 inches) in length, the greatest demand being for 3, 4, 5, 6, 7, and 8 centimeters (1.18, 1.57, 1.97, 2.36, 2.75, and 3.15 inches), flat heads. Prices vary. The import duty is 8 per cent ad valorem, and other expenses amount to one-half of 1 per cent.

South Australia imports practically only wire nails. Conical heads are preferred to flat ones. All sizes, from 1 inch to 6 inches and from No. 4 to No. 16, are in demand.

The imported nails come from Great Britain, Germany, the United States, and Belgium. The nails from the United States often give rise to complaint, as the heads break off too easily. Prices vary greatly. Lately, they averaged 10s. ($2.43) for Nos. 5, 7, and 8; 11s. ($2.67) for Nos. 9 and 10; 12s. ($2.92) for No. 11; 14s. ($3.40) for No. 12; 15s. ($3.65) for No. 13; 16s. ($3.89) for No. 14; and 20s. ($4.86) for No. 16. These prices include import duty and all other charges.

In Tasmania, the demand is chiefly for nails for building purposes and for the manufacture of fruit cases. For the latter purpose,

wire nails, 1¼ inch, No. 14 or 15, are used; also 1½ inch, No. 12, 13, or 14. For other purposes, nails with conical heads are given the preference. The annual import of nails amounts to about £6,295 ($30,634.62). Great Britain, Germany, the United States, and the Netherlands share in the trade.

The import duty amounts to £2 10s. ($12.16) per ton, and the wharfage dues to 5s. ($1.22).

In West Australia, wire nails with conical heads, of 1 to 6 inches in length and from No. 4 to No. 18, are mostly used, and these are imported from Great Britain, the United States, Belgium, and Germany.

WALTER SCHUMANN,

MAINZ, *June 8, 1900.* *Consul.*

ELECTRICITY IN BRITISH CITIES.

A few of the main thoroughfares of London will soon be electrically lighted, some poles having recently been put into position. Piccadilly had a few as long ago as the fall of 1896, and no doubt the success of that experiment is regarded as warranting extension on careful lines.

Birmingham is still a gas-lighted city, and there seems to be no street electric-lighting movement, though on January 1 last the corporation took under its municipal wing the small electric-lighting company. New mains are now being put in, and the question of electric street lighting must come up within a year or two, as must also the question of cost to consumers. Cork is one of the smallest towns with electric service and gets its electricity as cheaply as any city. The charge in Cork is 4½d. (9 cents) per unit for the electricity used in the first two hours every day and 1d. (2 cents) during the succeeding hours. For motor purposes, the charge is 4d. (8 cents) the first two hours and 1d. (2 cents) thereafter. In Birmingham, there is a uniform rate of 7d. (14 cents) per unit to the general run of consumers—that is, to the great number using 100 or less units per month. For any quantity in excess of 100 units, 4½d. (9 cents) is the charge. There is also a special provision of 4d. (8 cents) per unit up to 100 units per month for electrical energy used for motors or all-day loads, and any quantity in excess of 100 units is 2d. (4 cents). A unit means here the burning of seventeen ordinary incandescent lights one hour.

The gas department of the city of Birmingham also favors large consumers, and the result is a large use of gas engines in factories.

The prices of gas per thousand cubic feet per quarter in one building are:

	s.	d.	
Under 25,000	2	6	=$0.61
25,000 to 50,000	2	4	= .57
50,000 to 250,000	2	2	= .53
250,000 and upwards	2	0	= .49

MARSHAL HALSTEAD,
Consul.

BIRMINGHAM, *June 19, 1900.*

ELECTRIC UNDERGROUND RAILWAY IN LONDON.

In a newspaper article dealing with the Central London Railway, the new underground electric road running from the Bank to Shepherd's Bush station, I notice these two sentences:

> The carriages which have been provided excited a good deal of admiration. They are open from end to end, after the American fashion, though they were not built in America, as was stated yesterday, but in Manchester by the Astbury Wagon Company.

I wish to call attention to the element of protection to British home industries in the necessity for explanation that the cars were not built in America. This explanation was doubtless made at the request of the underground-railway company's officials, who had been criticised because they bought so much of their material abroad—that is, in the United States—and have become sensitive on the subject. The formal opening of the railway took place yesterday. The Times' account states that the time occupied in the journey, about 6 miles, was 22 minutes. "This was without intermediate stops and without excessive speed, but the actual running time will be longer, owing to the twenty seconds stops at the stations and the time lost in starting and stopping. This, however, is reduced to a minimum by the system of making each station stand, as it were, at the top of a hill, so that acceleration at starting is facilitated by gravity, while the incline aids in bringing the trains to a standstill." In its description of the cars, the Times said:

> The passengers are seated along the side, and each has a separate seat provided with arms. Some of the coaches, which are all mounted on four-wheeled bogies, were constructed at a time when it was intended to have two classes on the railway, and naturally the fittings and upholstery in those which were designed for passengers of the superior class are rather better than in the others. All, however, are really as spacious and comfortable as anyone can desire. They are exceedingly well lighted by electricity, and the lamps are so arranged that their light is free from sudden jerks and almost inappreciably affected by alterations in the speed of the train.

The following is a description of the railway, taken from yesterday's Times:

The opening of the Central London Railway is an event which was originally expected to take place much sooner than has actually been found possible. Parliamentary powers for the scheme were obtained as far back as 1892; but construction did not begin till four years ago, and delays of various kinds have hindered the completion and equipment of the line until the present time. For some months past, experimental trains have been running, but matters have not until recently advanced so far as to admit of the formal opening, the ceremony which is to be performed this afternoon by the Prince of Wales.

The engineers of the line are Sir Benjamin Baker and Mr. Basil Mott, and the contractors the Electrical Traction Company, who for the sum of £3,114,000 ($15,154,281) agree to undertake all risks and contingencies in connection with its construction and to hand it over to the company this month complete and ready to be opened for public traffic.

The railway starts from Shepherd's Bush, in the west, and, running under Uxbridge road (or, to use its new name, Holland Park avenue), Bayswater road, Oxford street, Holborn, Newgate street, and Cheapside, terminates at the Bank. An extension to Liverpool street, which was contemplated at one time, is not being proceeded with. In this distance of nearly 6 miles, there are eleven intermediate stations. These, as a rule, are less than half a mile apart, but in three cases the interval exceeds 1,000 yards—between Shepherd's Bush and Holland Park (1,012 yards), Westbourne Park and Marble Arch (1,288 yards), and Chancery Lane and the post-office (1,163 yards). The stations are all of very much the same type. The booking offices at the street level are one-storied buildings of terra cotta, designed in a kind of Renaissance style. From them passengers descend either by electric lifts or by spiral staircases to the platforms, which in one case (Notting Hill gate) are as much as 92 feet below the pavement. Practically a distinct station is provided for the up and down trains, and sometimes, as at the post-office, one is considerably higher than the other. Each may be described as a cast-iron tube 21 feet 6 inches in diameter and over 3,000 feet long. The platforms of the two are connected by cross tunnels, as is found necessary, and the passages, etc., have been arranged so that the streams of people going to and coming from the trains interfere with each other as little as possible. The electric light is installed, and the walls are lined with glazed white tiles. The Bank station differs from the others in being entirely under ground and in being complicated with elaborate subway arrangements.

* * * * * * *

The trains in each direction run in separate tunnels, which are generally side by side, though at Notting Hill gate and the post-office one is above the other. They are continuous cast-iron pipes 11 feet 6 inches in diameter, bolted together in segments. For the greater part of the route they lie in the London clay, but for a short distance, near Berners street, they pass through the Reading beds. The Greathead shield was used almost throughout in their construction. Their average depth below the surface is about 70 feet; at the stations they rise somewhat nearer the surface than in the intermediate sections, and therefore an arriving train runs up hill to the station while a departing one runs down hill. In this way both starting and stopping are aided by the force of gravity, and the strain on the motors and generators at starting is reduced; at the same time the depth of the shafts for the lifts is lessened.

The permanent way consists of heavy steel rails weighing 100 pounds to the yard, laid on longitudinal sleepers; the third conducting rail necessary to complete

the electrical circuit is of channel steel, 85 pounds to the yard, carried on creosoted wooden insulators.

The trains will be made up of seven coaches carrying altogether 336 passengers and drawn by an electric locomotive weighing about 45 tons. These coaches, which are all of the American type now familiar on the other electric underground railways in London, are of one class only, and the fare to be charged has been fixed at 2d. (4 cents) for any distance. Electric light is, of course, employed for their illumination. The locomotives are carried on two four-wheeled bogie trucks, and there is a gearless motor of 125 horsepower on each axle. A speed of about 14 miles an hour, inclusive of stoppages, is to be maintained—that is to say, the journey from the Bank to Shepherd's Bush will be performed in about twenty-five minutes. The Westinghouse air brake is fitted to all the stock.

The electrical power is generated at a depot at Shepherd's Bush, where a large area has been secured for engine houses, carriage sheds, sidings, etc., close to the West London Railway. Here, there are six 850 kilowatt generators giving a three-phase current at 5,000 volts; this is, of course, transformed down to 500 volts before being used in the motors. Four of these machines will, it is expected, be sufficient for the ordinary demands of working, so that there are two spare ones available in case of a breakdown. Like the locomotives, they were constructed by the General Electric Company in the United States. Each of them is coupled to a steam engine of the cross-compound Reynolds-Corliss type, built by Messrs. Allis, of Milwaukee, Wis., which is of 1,300 indicated horsepower (working up to 1,980 if required) and runs at ninety-four revolutions a minute. Steam is provided by Babcock & Wilcox water-tube boilers, the smoke passing away by two chimneys 220 feet high, each of which can serve a range of ten boilers, though all of these are not yet installed. In addition, there are various subsidiary engines, together with an array of apparatus to reduce labor and secure economical results in working.

It will doubtless be noticed that a very large part of the plant is of American manufacture. English makers, indeed, are not entirely unrepresented—they have supplied, for instance, an overhead crane, some feed pumps, and some not very large engines for driving fans—but they cut a sorry figure beside those from the other side of the Atlantic, who have made the carriages, the locomotives, the cables, the main generators, the exciters, and the main engines. It can not be said that contracts for these things were not worth the notice of home manufacturers, since the total cost of the line has been something like £600,000 ($2,919,900) a mile, and a substantial proportion must have been expended on equipment. Some other reason must therefore be sought to explain why they have secured so little of the work. It might be said that their experience of electric-traction work was too limited to enable them to carry out the contracts satisfactorily if they had obtained them. A more comforting explanation, however, is to be found in the fact that, when the contracts were being arranged, the British mechanic was indulging in a strike, and therefore his masters were unable to offer the necessary guaranty that they would deliver the machinery at the required dates.

MARSHAL HALSTEAD,

BIRMINGHAM, *June 28, 1900.* *Consul.*

AMERICAN SHOES IN GREAT BRITAIN.

The British Boot and Shoe Trades Journal, in a recent number, said editorially:

We felt at one time that the importation of a few American-made boots and shoes was a good thing, and calculated to stimulate our manufacturers to greater efforts and cause them to make the place rather warm for all intending invaders; but the position is now almost analogous to that of the Australian farmer who, thinking that a few rabbits would improve the rural aspect of the farm, imported some. The few soon became many, and the agricultural prosperity of the colonies is now seriously threatened by the thriving rodent. In like manner is the trade threatened by the importation of those few first samples, and mainly because of the indifference with which the importation has been regarded by our own manufacturers.

In another department of the same issue of this publication, the "bagman," or, as we should say, the "drummer," is credited with this opinion:

In looking backward, one feels that the spring season has been especially noteworthy in respect to one particular item, viz, every commercial traveler representing a British house has felt American competition to be a real, live fact, and far from being the bogy that it was said to be some time back. Slowly the various American houses have advanced and spread themselves around, adapting themselves to the wants of each particular market with a cleverness which will always make them formidable competitors. They are thousands of miles away, and home manufacturers are on the spot, and yet, in spite of all disadvantages, they have increased their trade and to some extent established themselves.

The effort to sell American shoes in this country has certainly had a very marked effect on the style of shoe worn, and, though they have not gone to quite the extreme, the shoes exhibited in the shoe-shop windows in Great Britain to-day are of the pointed type worn in the United States a few years ago. It is also a singular development of this international dealing that the shoes sold in the United States to-day are broader soled and broader toed than anything worn in England, and this must be due to the creation of a market for the broad shoe in the United States at the time the demand for the same type fell off in Great Britain, owing, no doubt, to the early efforts in Great Britain of the United States manufacturers to sell the kind of shoe then worn in the United States. The splendid finish of the American shoe and its flexible leather won a way for the shoe, carrying with it the pointed toe under the mistaken impression that it also had a share in the new foot comfort.

The many American shoe salesmen with whom I have acquaintance report very great progress in this market and find that they are now sought, where formerly they had to plead for an opening

chance. One salesman, who was in Birmingham lately, told me that his books for the year recorded the sale of $300,000 worth of shoes in Great Britain alone, and stated that his books would not show all the sales he had made here, because there were so many of his customers who could not be persuaded that they could not buy better by buying from the home house direct.

These figures, it should be noted, represent the sales of one concern, and there are, I understand, at least twenty other shoe houses represented in England.

One New England shoe manufacturer has established a retail store in London, where he sells his goods, has shining parlor, etc., and this establishment has already proved so profitable he is opening another one in a different section of the city and contemplates an extension throughout the provinces.

Large manufacturers have found it to their advantage in the United States to establish their own retail stores throughout the cities of the country, and this is much more important here, as the average English shopkeeper gives such long credits and has so much of his money represented on his books that he can not keep an extensive stock. The result is that, while in the average shoe store in the United States one has the chance of selecting from a stock with five widths and half sizes in lengths—seven widths in some establishments—in the average shoe shop here only three widths are kept and no half sizes in lengths; and inability to fit individuals out of a three-width stock assists the shopkeeper in his endeavor to persuade the customer to have shoes "made to order," despite all the chances of misfits which that means. Low-priced cash dealings, one price to all, confirmed by plainly marked figures, are features of business just as acceptable to the buyers here as at home. The general public would prefer to be purchasers in competition instead of patient, long-suffering customers, if they were given the opportunity.

MARSHAL HALSTEAD,

BIRMINGHAM, *June 25, 1900.* *Consul.*

GROWTH OF THE ICE HABIT IN ENGLAND.

The ice habit is making rapid progress in Great Britain, due largely to the incessant clamor for ice in hotels and public places by the thousands of traveling Americans. Not very long ago, the attendants of public places in England, where nearly everything except ice was provided, would be insulting if one complained because ice could not be had. To-day, all first-class places have a few small lumps swimming in a glass dish, and you pick these out with

sugar tongs; and in country inns and even in second-class public houses they apologize for not having it.

Though very few saloons and restaurants have refrigerators, many private residences now own them; and there would be far more general use of ice if companies were organized to distribute it from house to house. As it is, one must secure it almost by favor from the fishmonger.

Last summer was an unusually hot one, and all the American refrigerators in stock in England by consignment or otherwise were sold. Properly handled, there is good opportunity in England for American refrigerator manufacturers.

Cold storage is a growing business here, and large brewers are putting in extensive cold-storage-machinery plants; but American manufacturers in this line are not, to my knowledge, in evidence.

Yesterday's issue of the London Daily Mail had an article on ice. In this, the yearly consumption of ice in England was estimated at 450,000 tons (long) and in London at 160,000 tons, and the paper added: "The demand is rapidly increasing, now that the public have awakened to an intelligent appreciation of the cheapness and usefulness of the commodity." One London ice company is credited with having a permanent storage of 10,000 tons to meet unusual hot-weather demands, daily supplies being taken direct from ships which bring it from the mountain lakes of Norway; and, of course, a good deal of ice is manufactured.

MARSHAL HALSTEAD,

BIRMINGHAM, *June 22, 1900.* *Consul.*

TRADE-MARKS IN DENMARK.

I deem it of importance to American exporters to Denmark to direct their attention to the trade-mark laws of this country. Under the Danish law, a trade-mark is granted four months from the date of filing the application, but any person having already registered a similar trade-mark in another country may apply here and the mark will be registered in the name of the person to whom such trade-mark has been granted, the registration upon behalf of the Danish applicant being refused.

The American manufacturer whose trade-mark has not been registered here runs the risk of having it taken away from him by any unscrupulous person who intends to put an imitation of American goods upon this market.

A large firm of English pickle makers has lately been compelled by reason of neglect in this matter of trade-mark registration to

materially modify its old trade-mark of St. George and the Dragon, because that saint and that dragon had been appropriated by a Danish firm making a liquid dentifrice. The popularity of American goods in this country grows daily, and American manufacturers will avoid much trouble and expense by registering without delay.

J. C. INGERSOLL,

COPENHAGEN, *July 4, 1900.* *Consul.*

POULTRY RAISING IN BELGIUM.

It has been suggested that a report on the method of raising fowls for the market in this country would be of service, not only to those directly interested in the like business in our country, but a boon to the public at large. The succulence of the "poulet de Bruxelles" has a very widespread reputation, not only among gourmets, but among all who have had the good fortune to travel upon the Continent and meet the same on the table.

The difference in quality between the fowl above mentioned and one of the same age and size of the ordinary variety is shown by the fact that the first is sold in nearly all the markets in this country at double the price. For example, a young poulet de Bruxelles which we should consider about the size sufficient for a meal of two persons is sold to-day for 5 francs (96.5 cents), whereas one of the ordinary variety can be purchased for between 2 and 3 francs (38.6 and 57.9 cents).

The excellence of the fowl seems to depend, as far as can be ascertained, on the careful manner in which the sitting hen is treated, the cleanliness observed about her, as well as the careful feeding of the young chicken until sufficiently developed for eating purposes. Whether or not the methods pursued here differ from those followed by careful breeders in our country, it is impossible for me to say. Travelers almost invariably express their astonishment at its tenderness and juciness.

The choice of eggs for setting purposes is considered a matter of great importance, and the freshest obtainable are almost invariably used. The best breeders seldom take eggs older than eight days for raising the best quality. Care is taken that the eggs given to one hen should be of the same age. The eggs when collected are kept at a very even and medium temperature until given to the hen, and are turned daily. This measure is taken, I am informed, to prevent the yolk, which is lighter than the white of the egg, from adhering to the top of the shell. The eggs chosen for the purpose above mentioned are also of an average size, those above medium being

rejected, as they often contain double yolks. Eggs reecived from a distance, and consequently exposed to more or less shaking, are allowed to stand a day or two before being put under the hen. Great care is also taken that the eggs should be perfectly clean.

The nest is prepared of straw or cut hay, perfectly clean, dry, and odorless. As a rule, the sitting hens are located in corners where the greatest quiet is obtainable, and are not exposed to great light. When so located, they are not disturbed for any other purpose than the placing before them of their daily supply of food and water. As the hen leaves her nest at least once a day to search for food, to take exercise, etc., care is taken to put her food and water within reach of the nest, in order that the time that she is off the eggs may be materially shortened.

RAISING AND FEEDING.

When the young bird is hatched, it retains in its body part of the yolk of the egg from which it was produced, which suffices to nourish it for the first twenty-four hours, during which period only warmth is required, which is furnished either by the mother hen or must be afforded by a warm cloth, in case of the necessity of awaiting the hatching of the rest of the brood.

The food first given can be varied, but must be made up of ingredients containing large quantities of nitrogen, as this is required for the formation of the tissues. It is necessary, in fact, that the food should be composed of matter resembling in character an egg, together with milk. It is customary to mix with the food eggs, milk, and the blood of earthworms, field worms, and that of a commoner variety of fish; also to introduce, for the formation of bone, certain quantities of phosphate of lime found in grain and flour. In the early days, flour should be given, on account of the facility of its digestion, grain being substituted therefor as the birds begin to gather strength. Wheat flour is generally used. The grain given is wheat, rice, millet, buckwheat, and corn, raw or cooked. Cooked potatoes are also often given, as a change of diet. It is customary to vary the grain diet as much as possible and to frequently administer it mixed. The food ordinarily employed is made up as follows: Hard-boiled eggs and wheat flour are mixed in milk, a little water being added. To this paste is added a small onion finely cut up, together with lettuce when green food is scarce. The mixture is ordinarily quite stiff, as too moist food is considered harmful for the young brood.

After the first few days, a small quantity of whole grain is mixed into the paste; but if rapid development is desired, the simple paste should be continued alone.

Great care is taken to keep the young brood in a dry, warm locality, which precaution, together with the proper food, prevents inflammation of the intestines and like troubles. As a rule, the birds are confined on wet days and allowed to run about as much as possible only in fine, sunny weather. In winter a more generous diet is given to enable them to withstand the cold. The daily ration of grain for the fowls is from 2½ to 3 ounces.

GEO. F. LINCOLN,
Consul-General.

ANTWERP, *June 7, 1900.*

RUSSIAN BUSINESS METHODS.

The Chamber of Commerce of Frankfort has published a statement about Russian credits and commercial laws, which should be of interest to American firms trading in Russia. It is summarized below:

Since the operation of the German-Russian commercial treaty, cases have increased in which German firms could not collect payment for their goods without recourse to law, and the losses sustained by firms who did not exercise caution in extending credit have been very heavy.

In the large cities of Russia—Moscow and others—there exist many absolutely reliable firms. The average commercial trustworthiness, however, is of a lower order than in western Europe. Nowhere is it more essentially necessary to obtain information concerning the standing, responsibility, and honesty of buyers than in Russia, and nowhere is it so difficult to obtain. Commercial bureaus of information are not permitted by the Russian Government. Those people who, in spite of this prohibition, conduct this sort of business have to do so under cover, which creates suspicion and makes public control impossible. The respective consuls can not be of service, as their official position prevents them imparting unfavorable information relative to Russian firms in their districts. The best way would be always to apply to responsible foreign bureaus of information. With reference to merchants in the provincial towns, with the exception perhaps of some foreigners doing business there, it is quite impossible to obtain any information. Even Russian firms send agents to these places in order to gain the desired data on the ground. All merchants in Russia work with a large loss account. German firms frequently ship goods before they have received the information requested, and if an unfavorable answer arrives after the shipment they try to stop delivery of the goods already on Russian soil. This can not be done. According to Russian law, all merchandise which has crossed the border and arrived in Russian territory is the property of the Russian addressee, and the forwarding agent has to deliver it to him, even if the sender should send orders to the contrary. A judicial seizure can not be made in most cases, as payment has not yet become due.

Great caution must be exercised in the choice of an attorney at law; there are two classes in Russia—sworn and private attorneys. Only the former are organized as an association, and its members are much more reliable and trustworthy than the latter. It is always advisable to employ only "sworn" attorneys. In the interior, aside from other causes, it is impossible to successfully sue a merchant, as no reliable attorneys exist there. Many attorneys are in the habit of considering

sums recovered for their clients through the court as their own property and using them for private purposes.

The mode of compensation for attorney's service in Russia is very different from that in Germany. The Russian law prescribes that attorneys have to make an agreement with their clients before taking a case. Often, reimbursement for costs and a percentage of the sum recovered is agreed upon, varying between 5 and 20 per cent. In Russia, all debts exceeding 150 rubles ($77) and all protested commercial papers have to be sued in the commercial courts. The losing party is assessed only a very small portion of the costs of suit. The foreign claimant has therefore to stand almost the entire costs, even if successful, and even when the defendant by all manner of trickery has purposely increased the costs.

It must also be borne in mind that on demands denied by the court, a fine of 5 kopecks (2½ cents) per ruble is to be paid, and for unwarranted appeals 10 kopecks per ruble in favor of the judges. The whole court institution is maintained by these fines. They are collected in the most rigorous manner, even in cases of arbitration, where the plaintiff from the start is willing to abide by the decision of the arbitrators. Although everybody in Russia agrees that the manner of doing business in these commercial courts, which dates back from about 1820, is superannuated, it has so far not been possible to institute reforms.

The Russian law recognizes no interest after maturity of a claim. Merchants can therefore recover interest after maturity of claims only when this has been explicitly stipulated by a contract; otherwise, a claim for interest at 6 per cent must be stated specially in the judicial decree. But interest never commences before the day of bringing suit. A merchant in Russia can be declared insolvent if claims against him exceeding 1,500 rubles ($772) are due. In practice, only notes due are considered.

For the foreign exporter, the possibility of a contest hardly ever exists. It happens very often that the debtor whom bankruptcy stares in the face transfers his business and the whole stock to his wife or other persons, and nothing can be collected. The creditors may have him declared a fraudulent bankrupt, but can not recover, as the purchasers of the business of the debtor can not be reached. The attachment of goods "in natura" can not be made, even where held on commission, as according to the letter of the law all goods, with hardly an exception, must go into the assets.

RICHARD GUENTHER,
Consul-General.

FRANKFORT, *June 26, 1900.*

SHOOTING CANNON AT CLOUDS IN FRANCE.

An effort is being made in this section of France to dissipate hail storms by firing cannon at the clouds. Fifty-two cannon, manned by 104 cannoneers and their chiefs, have been distributed over an area of 2,500 acres of rich vine land. For the expense of the experiment, the Government appropriated 2,000 francs ($386), the departmental council 1,500 francs ($289), the National French Agricultural Society and a number of wealthy wine growers added 12,000 francs ($2,316) and furnished fourteen more cannon. The Minister of War supplied powder for 2¾ cents per pound.

A high point in the vine land to be covered by the experiments

was selected as the central post of observation and a signal code adopted. When a shot is heard from the central post all the cannon are fired, at first twice per minute; more slowly after the first ten shots. I translate the report of the first firing at the storm clouds this season:

The farmers of Denicé were aroused at 1.30 o'clock on the night of June 5–6. The storm was very severe. The artillerists, from 40 to 50 strong, fired their guns and stopped the thunder and lightning. In the neighboring communes, the people saw columns of flames rise 300 feet above the cannon when the shots were fired. At several places, women recharged the cartridges.

The wine growers are organizing to attack the hail storms in many of the great wine-growing regions of France. The two experiments thus far reported are pronounced successful. A writer in one of the wine-growers' organs says:

The results obtained from these experiments are such that organizations will be established at once in all the places that have heretofore been ravaged by hail.

I am told that the practice of shooting at the clouds was known in France over a hundred years ago, and that it originated in Italy. It is to be more extensively carried on this year than ever before.

JOHN C. COVERT,
Consul.

LYONS, *June 25, 1900.*

OLIVES AND OLIVE OIL IN FRANCE.

In reply to inquiries from a Michigan correspondent,* Consul Skinner, of Marseilles, under date of July 3, writes in regard to the outlook for the olive crop in France. The impression prevails, he says, that the crop will be a disappointment this year, as it was last. The annual production in that Department is about 300,000 quintals of 220 pounds each. Meager reports from Spain, Italy, Tunis, and Algeria point to much the same yield as last year. Consul Skinner adds:

French farmers are disposed to abandon the cultivation of olive groves, as in recent years the prices obtained for the oil have not been satisfactory. It is true that there was a sharp advance last year, due to a shortage in the crop; but the highest prices reached, ranging about 36 cents per kilogram (2.2046 pounds) for best French oil, were low as compared with old-time prices, which held firm at 50 cents per kilogram. Because of this fact and the discovery that other articles can be grown with greater profit, the acreage devoted to olives is annually becoming less in this region, and my attention has been called within the past few days to the uprooting of 40,000

*To whom copy of the report has been sent.

trees during the last six months in this Department alone. Spain and Italy, with cheaper land and cheaper labor, and more particularly Tunis and Algeria, are offering a competition too severe for southern France. The French colonies last named are especially adapted to the successful prosecution of the business, and it is carried on across the Mediterranean upon a very large scale. It is doubtful if olive oil will ever recover its old-time place, as many vegetable oils, notably American cotton-seed oil, are being produced in increased quantities from year to year and are gaining in the estimation of the public.

Pure olive oil for edible purposes is at present practically unknown in any important market, and if it were offered for sale it is doubtful whether it would be accepted by the public, except as an inferior article, as the average consumer at the present time prefers the neutralized taste of a mixture of the olive and vegetable oils, and would mistake the fruity flavor of the pure juice of the olive for an adulterated product.

For some domestic purposes, and particularly for frying vegetables, arachide oil—or peanut oil, as we call it—is considered, even in France, the home of the olive, superior to any other product.

MOTOR BOATS ON THE DEAD SEA.

The Dead Sea, which for thousands of years has been a forsaken solitude in the midst of a desert, on whose waves no rudder has been seen for centuries, is to have a line of motor boats in the future. Owing to the continued increase in traffic and the influx of tourists, a shorter route is to be found between Jerusalem and Kerak, the ancient capital of the Land of Moab.

The first little steamer, built at one of the Hamburg docks, is about 100 feet long, and began the voyage to Palestine on June 16. An order has already been given for the building of a second steamer. The one already built and on the way is named *Prodromos* (that is, "forerunner"). It will carry thirty-four persons, together with freight of all kinds. The promoters of this new enterprise are the inmates of a Greek cloister in Jerusalem. The management of the line is entirely in German hands.

The trade of Kerak with the desert is to-day of considerable importance. It is the main town of any commercial standing east of the Jordan and the Dead Sea. Its population consists of about 1,800 Christians and 6,000 Moslems. The merchants of Hebron are among the chief frequenters of the markets of Kerak.

JNO. F. WINTER,

ANNABERG, *July 10, 1900.* *Consul.*

STREET ROLLER AND PETROLEUM ENGINES WANTED IN BEIRUT.

The streets of Beirut are in a deplorable condition, and extensive improvements are contemplated. The small rollers used at present are drawn by eight to ten mules and are found inadequate and very difficult to manage on the narrow streets, some of which are less than 20 feet wide. Bids are now wanted on a roller (steam) weighing from 11 to 14 tons and capable of working on an incline of 5 per cent. The machine should be so constructed that the weight can be increased or diminished. I understand a steam roller has recently been purchased by the municipality from England, costing about £380 ($1,849). The negotiations for this machine were, however, completed before the rise in the price of iron.

The idea is now to purchase a similar machine from the United States and test it thoroughly. Future orders may be hoped for if it should prove satisfactory. Prices should be c. i. f. Beirut and bids should be sent to Messrs. H. Sabbag & fils, Beirut, who have agreed to furnish the municipality with all necessary information regarding American steam street rollers. Bidders at home should lose no time in putting themselves in communication with Messrs. Sabbag.

Mr. Michel J. Nasser informs me that he would be glad to open correspondence with manufacturers of petroleum engines for irrigation purposes. He desires lowest prices on engines of from 1 to 5 horsepower, with cost of operating the engine and amount of oil consumed when run twelve hours per day. These engines have found quite a market in the neighboring city of Haifa, but they are all of German manufacture.

Mr. Michel J. Nasser is a commission agent of Beirut, Syria, and is taking much interest in American goods.

WILLIAM C. MAGELSSEN,
Vice-Consul.

BEIRUT, *July 10, 1900.*

MINES AND AGRICULTURAL IMPLEMENTS IN ASIA MINOR.

During a recent visit to the agency at Mersine and the towns of Tarsus and Adana, lying in the plain of ancient Cilicia, I was much impressed with the lack of proper methods in farming. This plain is solely an agricultural region, and the work is done mostly as it was hundreds of years ago; plowing is effected with a sharp stick

pointed with a bit of iron, harvesting with a sickle, and thrashing by tramping out the grain with oxen or horses drawing a sort of sledge.

It occurs to me that with a proper system of farming on this plain of nearly 2,000 square miles, and with modern implements, more than double the usual amount of grain could be raised.

In the hope that business men may take advantage of the present seemingly favorable opportunity in the way of opening mines and introducing agricultural machinery here, Mr. Viterbo, United States consular agent at Mersine, has kindly furnished the following information:

There would be, I think, a good prospect for direct relations between this coast and United States ports if some of our capitalists would take an interest in developing the mining business of this district. Many veins of various ores—chrome, lead, copper, etc.—have been lately discovered, but for want of capital no work has been done.

Some of the natives are working a few veins of chrome and manganese, as the Turkish law permits the prospector to export 2,000 tons of those two kinds of ores before his concession becomes definite. It might be interesting to state here that through this agency there has already been delivered a certified invoice for a shipment of 100 tons of chrome ores of 50 per cent of oxide of chromium. I have no doubt that the import into the United States of chrome and manganese ores would be profitable and that a regular trade could very soon be established, if some encouragement would come from the buyers in the United States.

I would call the attention of manufacturers of agricultural implements to the opening here for harvesters, rakes, thrashers, etc., which are largely used in this district, although the general methods of cultivation are very defective and obsolete. I think that a light, cheap plow which could be easily drawn by a pair of oxen would find a ready sale here. But I am sure that the most important business could be done in light thrashers for grain, especially built for the needs of this country. The steam-power thrasher ought not to be of more than 1½ to 2 horsepower, easily transportable on wheels by one or two horses, with engine and boiler attached, the fire box being especially designed to burn straw. The straw coming out of the thrasher ought to be cut in pieces by the machine itself, so as to be in good condition for food. Thrashers of this kind, horse or steam power, could be sold by hundreds each year to the small farmers in this part of the country.

WM. ROSS DAVIS,
Consul.

ALEXANDRETTA, *June 16, 1900.*

RAILWAY IMPROVEMENTS IN FORMOSA.

In addition to the new railway lines described in a previous report,* Taihoku (Taipeh), the capital, and its suburb Daitotei (Twatutia), where the tea business is conducted, are to be connected with the port of Tamsui (Hobe) by railway. This is news that can be appreciated fully only by the long-suffering North Formosa resident. The three places mentioned are all on the Tamsui River, the distance

*ADVANCE SHEETS No. 485 (July 25, 1899); CONSULAR REPORTS No. 228 (September, 1899).

between the capital and the port being some 11 miles (by river), and the only communication has been by water. River travel for such a short distance does not in itself seem specially disagreeable; but, owing to the wretchedness of the launches and the shallowness of the river at low tide, it has obtained a meaning to local residents which can not be calmly expressed. With the exception of a Japanese "side-wheeler" put on by the Osaka Shosen Kwaisha and a very comfortable little launch run by the Douglas Steamship Company on steamer day, the river trade is controlled by some six Chinese launches carrying altogether about 400 passengers a day. All classes of passengers and all kinds of freight, including several varieties of live stock, obtain easy entrance and receive equal treatment aboard these boats. One may have a Chinese in silk as neighbor on one trip and a crate of young pigs on another. With the exception of a few low benches, scarcely sufficient to accommodate a fifth of the passengers, no seats are furnished; and if a traveler wishes to enjoy such luxuries, he is expected to bring a chair with him. Should he forget the latter article, he may be so fortunate as to obtain a 7-inch seat on a side rail crowded between Celestials, or he may be specially favored with a seat on the roof of the little boiler room—a true delight in winter, but quite another thing in summer. The Chinese launches have no special hour for starting. Passengers are solicited by a continuous shrieking of the whistle, and when a sufficient number have arrived on board the little boat gets under way.

Ordinarily, the river trip is made in an hour and a half; but frequently, to the great disgust of the suffering passenger, who is generally unprotected from the rain or sun save by an abbreviated, tattered roof awning, the little craft seats herself securely on a sand bank, and sometimes three hours are required before the tide has risen sufficiently to float her.

At the port of Tamsui is the custom-house, but the commercial center is round about the capital and its suburbs Banka and Daitotei (Twatutia). Much inconvenience is felt and valuable time wasted in making the necessary trip to Tamsui to pass goods through the customs, and commercial matters dependent upon frequent communication with the port are difficult to care for. The new railway will lessen these difficulties greatly.

The proposed line will run from Taihoku (Taipeh) to Tamsui via Maruyama, Shirin, Hokuto, and Kantau. Maruyama is a picturesque park on the Kelung River, much frequented by Japanese merrymakers. Hokuto (Pak-tau) is a village at the entrance of the well-known North Formosa sulphur district. There is an excellent Japanese inn here—perhaps the best in the island—and the sulphur springs provide hot mineral baths, healthy and delightful. The

Japanese have recognized the value of the place as a sanitary resort, and extensive barracks and bath houses for the troops have been erected. Beyond the springs lies a gorge reeking with sulphurous fumes. The ground appears to be but a thin, ashy crust, vegetation does not exist, the rocks are burnt out and ash like, and sulphur has permeated both rocks and earth.

Numerous geysers, roaring and hissing like the escape valves of a hundred steam boilers, throw out quantities of hot sulphur and steam. The effect on entering the gorge is at first somewhat terrifying; but later, as confidence is regained, the scene becomes one of great interest, and numerous visitors are attracted to the place. Hokuto is the scenic resort of North Formosa, and with railway communication will doubtless grow greatly in popularity. From this district is shipped monthly some 200 tons of sulphur, the product of two Japanese extracting plants.

The sulphur-spring district, as well as Maruyama, present many attractive residential sites; and if the train service is convenient, it is quite possible that the city business men may elect to have their residences at one or the other of these interesting places.

Shirin and Kantau are villages of trifling importance, though the railway may give them new life.

To obtain the maximum of benefit from the new road, the trains must run frequently, and, that this may be possible without too great expense, the cars will be small and the locomotives light. The gauge will be 3 feet 6 inches, the same as the main line; but only 36-pound rails will be laid. The construction of thirteen bridges will be required, but only two of them are of any considerable size. In building this line, the materials from the old Chinese Kelung and Teckcham lines, which have now been almost entirely replaced, will be utilized. There are three or more old 25-ton locomotives in good order, a sufficiency of rails, and nearly all the required bridge ironwork now in possession of the railway office; and it is fortunate for the local government that this serviceable material can be put to such good advantage. There is no difficult engineering work required in the construction of the road, the maximum grade being but 1 in 100 and the curves very slight. The total length of the new line as surveyed is 13 miles, and it is expected that trains will be running within a year. The cost of the same, exclusive of the materials referred to above, is estimated at 420,000 yen ($210,000).

With the railway now being constructed through the island to Takow and the line just described running across the north of the island from Kelung to Tamsui, the Government will have completed the system of railways most required. A line from the west across the mountains to the east coast would be of great political value,

but it is doubtful if it would ever be profitable, considering the cost of the difficult engineering work which the construction would necessitate.

In connection with the railway building through the island, six locomotives, considerable general rolling-stock material, 60 miles of 60-pound rails and fastenings, and 400 tons of bridge work will be shortly purchased by the railway office. There are at present four large Baldwin locomotives here, giving splendid satisfaction, though the chief engineer informs me that there are very few Formosa trains sufficiently heavy to obtain full value from them, and the six locomotives now desired are to be lighter and consume less coal. Although the specifications for the new engines will call for some parts of American design, the general type will be more in conformity with the English machine; and, unless home manufacturers are prepared to follow the specifications, the order will probably go to England. The rails and most of the bridge work are, it is reported, to come from the United States.

JAMES W. DAVIDSON,

TAMSUI, *June 2, 1900.* *Consul.*

MACKEREL AND FERTILIZERS IN JAPAN.

Consul Lyon sends from Hiogo, June 8, 1900, translation of a Japanese official report upon mackerel and fertilizers, made at his request for the use of a local American firm, as follows:

MACKEREL.

Mackerel are found in all parts of Japanese waters, especially abounding in those facing the Pacific Ocean, the fish being large and fat. They are found in shoals, but when attacked by their enemies they disperse.

The time of the year for fishing is not uniform in every part of Japanese waters; spring and summer are the best, and autumn is the next. Small quantities, however, are caught during any season of the year. The fish are sometimes caught in the open sea, but generally in bays and inlets. In the open sea, the distance is 3 to 4 miles from the coast.

The Japanese fishermen catch the fish principally with hooks. The net is also used, the fish being decoyed by torchlight during the night, but this method does not yield many. The average size of the mesh of the net is about 2 sun (2⅜ inches) in circumference.

The quantity of the annual catch is indefinite, there being no complete statistics. The value, however, will not average less than 1,000,000 yen ($498,000) per year.

Foreign vessels are not allowed to fish for mackerel in any part of Japanese waters, except under special agreement for such fishing.

FERTILIZERS.

Human excrement, stable manure (horse and cattle), and dried sardines are used.

The following manures are generally suited to rice, tea, and mulberry culture, although there are differences, according to the soil and locality where they are produced.

Rice.—Human excrement, stable manure, and phosphate of lime or fish manure.

Tea.—Stable manure, rotten wheat straw, rape-seed-oil cake, fish manure, and small quantity of human excrement.

Mulberry.—Stable manure, rotten wheat straw, fish manure, and human excrement.

Phosphates are not lacking in the soil, owing to the use of fish manure.

Japanese manure contains mostly nitrogen and acid, and only a small quantity of phosphates.

As to foreign fertilizers, the importation of bean-oil cake from China is gradually increasing. Manure containing more or less phosphates, such as bones, etc., and phosphate of lime are also imported from the islands in Oceania.

FOREIGNERS IN SHANGHAI.

Consul-General Goodnow sends from Shanghai, June 22, 1900, statement of the foreign population of that city on May 26, 1900 (exclusive of those living in the French settlement). The total, compared with that for 1895, is:

Nationality.	1900.	1895.
British	2,691	1,936
Portuguese	978	731
Japanese	736	250
American	562	328
German	525	314
French	176	138
Spanish	111	154
Austrian and Hungarian	83	39
Danish	76	86
Swedish	63	46
Italian	60	83
Russian	47	28
Norwegian	45	35
Turkish	41	32
Dutch	40	15
Swiss	37	16
Belgian	22	21
Greek	6	7
Peruvian	2	5
Brazilian	3	.....
Indian	296	119
Manila and Malay	157	32
Persian	2	4
Korean	8	1
All other	7	264
Total	6,774	4,684

Of the British adults in 1900, 1,182 were men, 721 women, and 788 children; there were 231 American men, 183 women, and 148 children; 295 German men, 115 women, and 105 children; etc.

MINERAL AND AGRICULTURAL RESOURCES OF SIBERIA.

Commercial Agent Greener sends from Vladivostock translation from a recently published book by Baron de Batz, giving information about the gold-bearing strata, climate, etc., of Siberia, as follows:

GOLD BEARING STRATA.

I.—The territory within the jurisdiction of the Tomsk mining office.

In the mining districts of Tomsk, Tobolsk, Akmolinsk, Semipalatinsk, and Semirechensk gold is to be met with in the tributaries of the Ob. Now, diggings are confined to the affluents of Lake Zaissan and the Narim and Black Irkutsk rivers and to the affluents of Lake Esseh-Kone and Balikash and the Kopalsk. In the Akmolinsk, operations are centered in the locality of Kotchetavski.

II.—The territory under the Irkutsk mining office.

In the Maritime Province there is one group of concessions in the basin of the Amur and another on the island of Askold.* Here, the sea bed, which consists of auriferous sand, is worked in a perfunctory way. Among the affluents of the Amur important from the point of view of gold production, the River Amgoun and the Tumen must be noticed, as well as the Semi, the Nemilen, etc.†

The gold workings of the Amur constitute four groups, distributed for the most part over the left tributaries of the Amur River.

In West Transbaikalia, diggings are confined to the affluents of the Chikoi, a tributary of the Selenga, which empties into the Baikal, a tributary of the Yenisei.

The Lena mining district comprises the region traversed by the lesser hills of the Yabloni Mountains.

The virgin-forest zone in Siberia, which abounds in bogs and swamps, impenetrable except in winter when the ground is frozen, has a series of river and torrent systems, which may for purpose of general classification be called (*a*) the Podkammennaya-Toungounska system, (*b*) the Great Pit system, and (*c*) the system of the Yenisei and its tributaries. The Great Pit forms the boundary between the north and south districts.

In the Lena district, the gravel is very poor and difficult to work. The district of Biruginsk is the poorest locality within this jurisdiction, although at one time it occupied the foremost place in Siberia as a gold-producing district.

III.—The territory of the cabinet of His Majesty.

In the district of the Altais, gold is worked on tributaries of the Ob. The placers on the left bank of the Tom are worked by the companies of St. Petersburg with the special permission of the Czar. The right bank is free, and diggings are to be found on the River Tom, Alkan Choulichman, Upper Katoun Bonshtarma, etc.

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*See ADVANCE SHEETS No. 754 (June 13, 1900); CONSULAR REPORTS No. 239 (August, 1900).

† NOTE BY CONSUL.—Most of these latter concessions are under control of the First Russian Mining Company and the Northeastern Siberia Company, Limited, the last company organized in London, and soon to begin operations. The outfit is now in preparation here, under supervision of W. B. Vanderlip, jr., and Engineer Sharkey, both Americans. The Askold property is owned by Messrs. Lindholm & Co.

From this summary, it will be seen that the auriferous area extends over the slope of the mountain ridge which, rising from the steppes of Turkestan and dying away as it skirts the Sea of Okhotsk, traverses obliquely the Asiatic continent from southwest to northeast. From the meridian of Tobolsk to the Pacific the range is about 4,300 miles long, with an average breadth of nearly 400 miles and an area over 1,600,000 square miles. This country has only been superficially prospected, because roads are lacking and it is impossible to penetrate these primeval Siberian forests in summer; and to prospect in winter, when every outcrop and surface indication is buried beneath the snow, is not an inviting or profitable undertaking.

The work of Government exploration in the eastern portion has not proceeded beyond the sixty-second degree of latitude, although the existence of a very rich auriferous vein is known in the mountains, between the Lena and the Ayan.

THE GENESIS OF SIBERIAN PLACERS.

The Siberian placers are situated on the north and northeast of the great mountainous plateau described.

This vast plain, intersected by important rivers—the Wenga, Angara, Yenisei, (nearly 3,000 miles long), the Ob (over 2,600 miles), the Lena (more than 2,000 miles), and the Amur (2,600 miles)—still shows traces of great glacial activity. The origin of the Siberian placers, judging from researches made in other parts of the world—the United States, Australia, Europe—may be accounted for as follows:

The Silurian or Devonian mud, on account of the auriferous pyrites it contains, most competent geologists agree in regarding as the almost universal source of gold. This was upturned at the period of the formation of the Asiatic ridge, and at the same time was fissured and broken. The fissures, filled with quartz and pyrites torn from the schist by the action of the waters, became the veins already found. Subsequently, the powerful action of the Glacial period gave rise to the placers which are now being worked.

If this theory of the formation of auriferous alluvia, which has been verified in the other great gold-producing countries, prove true of Siberia also, then it is to the south of the localities at present worked that a systematic search for the primitive strata ought to be carried out.

It is already known that the Altais contain veins of lead, silver, and copper; numerous specimens of all kinds of minerals have been brought from that region by hunters and foresters. It is in these hills, with their westerly continuations, and in the mountainous mass which strikes out from Manchuria in a northeasterly direction that the wealth of Siberia must be sought.

The chain of the Khingan, "Mountain of Gold," is said to be rich in minerals, and it is doubtless from these hills and their spurs that the gold in placers of the Ussuri and the Amur (lower portion) was brought.

The same reasoning holds good for the hills bordering on the Sea of Okhotsk.*

PECULIARITIES OF SIBERIAN PLACERS.

The great extent of the regions covered with auriferous alluvia in Siberia is undoubtedly the primary cause of the difficulty experienced in examining them systematically. The impenetrable virgin forests at the north, with their luxurious vegetation, fallen trees, and, above all, marshy soil, prove an obstacle to geological

* NOTE BY CONSUL.—In the latter region, prospecting made in 1899 has already demonstrated the correctness of the deduction. An American company of geologists, under the lead of Prof. G. Frederick Wright, daily expected here, will doubtless make many additions to the present data concerning Siberia's hidden wealth.

research. It is impossible, in the majority of cases, to follow the different strata, recognize outcrops, or ascertain the nature of the subsoil.

It was not until 1886 that the want of a school of geology at Irkutsk made itself felt, although as far back as the year 1843 the department of mines had sent Colonel Hofman to Siberia to study the gold deposits.

The information obtainable on the subject of Siberian placers is consequently scattered through a great number of monographs, and until the geological committee of the Great Siberian Railroad publishes the result of their labors, it will be difficult to treat the subject comprehensively. In contrast with the great strata of the Rocky Mountains in California and in British Columbia, which belong to the Pre-Tertiary period, as attested by the volcanic matter with which they are covered, the alluvia of Siberia belong to the Quaternary epoch and are of recent formation.

Siberian placers are situated in valleys having usually a gentle fall and often marshy. Their distinctive feature is that the pay gravel above the bed rock is covered, in the immense majority of cases, with an unproductive layer of soil.

Auriferous localities are also generally characterized by the presence of low, rounded hills testifying to the intensely destructive action of the atmospheric agents upon the rocky conformation of the country. The placers are found at a moderate altitude above sea level. In the Urals, they are met with at a height varying from 500 to 1,000 feet; in the Alatau Mountains, at 2,000 feet; in the valley of the Olekma, from 2,000 to 2,500 feet; and in the Yenisei, from 2,500 to 3,000 feet.

In addition to native gold, frequently found in nuggets, iron pyrites, often in the form of mispickel, and all the products of its decomposition, such as magnetic oxide, limonite, hematite, etc., are met with in Siberian gravels.

Copper is found, sometimes native, sometimes in the form of copper pyrites; lead has been discovered as sulphate, carbonate, phosphate, or sulphuret.

Native bismuth has been found in the valley of the North Yenisei and in certain valleys of the Altai.

Among hard stones, garnets, rutile, tourmaline, zircon, peroxide of tin, etc., are found.

The organic remains are most generally those of the mammoth. In 1840, it was calculated that more than 2,000 of these animals were found; some, with portions of their bodies still soft, were discovered in the frozen clays of the extreme north. The woolly rhinoceros (*Rhinoceros tichorinus*) is also frequently met with.

The state of preservation of these mammoths—animals which required abundant vegetation—indicates in a striking fashion the rapidity with which the Glacial period must have enveloped the vast plains of Siberia.

Human remains have also been found—a skull at a depth of 10 feet in the Chtogolev mine in 1860; ancient hearths; also a stone slab, with inscriptions, in a mine in the basin of the Kigas.

A feature altogether peculiar to the Siberian placers, especially those in the district of the Lena, Zeya, etc., is that the soil remains perpetually frostbound or thaws only slightly in the summer time. Near the sources of rivers places are found not frozen; these are said to be caused by warm or tepid springs beneath the surface of the earth.

HISTORY OF WORKING.

The working of Siberia gold mines dates back only to the middle of the eighteenth century, at which period the first auriferous veins were discovered in the Urals and in the government of Archangel. Gold was discovered in the Ural Mountains in 1744. Several veins situated on the banks of the River Beregofka were worked with varying success from 1800. In 1895, the output was 19.46 poods (703 pounds). In the southern Urals, the first gold reef was discovered in 1799. The Kothkar reef yielded in 1894 about 85 poods (3,069 pounds).

Toward the close of the period 1870–1879, reefs were discovered in the government of Yenisei and the province of Transbaikalia. In 1894–95, gold-bearing strata were found in the district of Marunsk, in the government of Tomsk.

In 1866, the Amur Province was opened to private trade; two years later, mining was begun on the concessions belonging to the Upper Amur Mining Company, in the basin of the Djalinda. At the same period, explorations were set on foot in the Maritime Province, and in 1871 the first gold was taken from mines belonging to a Mr. Yetukof, in the basin of the Amgoun. During the season of 1897, the Amgoun Mining Company treated 10,834 cubic sagens of gravel, from which about 55 poods of gold were extracted, giving an average of 7.825 grams to a cubic meter. On the other hand, the Amur Mining Company took out of their placers 20⅓ poods (734 pounds) showing an average of more than 17.06 grams to a cubic meter.

Mr. Greener adds:

In 1896, the Government dispatched to the shores of the Sea of Okhotsk an expedition which, according to the latest news, has found rich alluvial drifts. There have recently arrived at this port direct from the United States six practical American miners under the auspices of the Russo-Chinese Bank. They are supplied with modern machinery, are men of experience, and go to the Yumen, where rich discoveries are reported. These are the "original forty-niners" of the "New California," and it is hoped they will give new impetus to mining in the Maritime Province. In conversation with one of them, who last winter prospected in the Yukon, Alaska, the idea was emphasized that the whole region about Anadirski and the extreme eastern range of the Stanovoi Mountains, near Bering Straits, would prove as rich as the Cape Nome region, since it was of analogous formation.

The translation continues:

SIBERIAN CLIMATE AND AGRICULTURE.

There is no doubt the climate of Siberia is more rigorous than that of any other country in the same latitude. The northern shore is washed by the Arctic Ocean, whence the polar winds sweep unimpeded over the country, while the great central Asiatic range shuts out the warm southerly and southeasterly breezes; hence, the regions of Siberia enjoy a more inclement and less equable climate than places of corresponding latitude in Europe or America (except the northern placers in the interior of Canada, which, however, profit in summer by certain warm-air currents from Mexico and the Antilles).

Siberia may be divided from north to south into three great zones.

First. The polar zone, or the zone of the "Toondea," stretching from the polar seas to the polar circle, with outlines somewhat irregular. Vegetation in this region is reduced to grasses, mosses, and lichens. The soil is perpetually frostbound.

Second. The forest zone, extending from the polar circle to the fiftieth or the fifty-fifth degree of latitude, characterized by thick forests intersected by swamps.

Third. The cultivable zone, stretching south to the Chinese frontier. In this zone the summers are warm and genial. Wheat, rye, and oats can be grown, and stock raising may be carried on. Almost all of the efforts of the colonists have been concentrated here. This comprises at present the four governments of

Tobolsk, Tomsk, Yenisei, and Irkutsk, leaving out of consideration their most northerly districts and the mountainous portions of the government of Tomsk, Yenisei, and Irkutsk lying near the Chinese frontier. It also includes the regions watered by the Amur and the Ussuri, sparsely populated at present, but rapidly being settled by immigration under the reduced rates on the Great Siberian Railroad now completed to Stretinsk, east of Lake Baikal. This zone contains approximately 54,000,000 acres, with only 5,380,000 acres under cultivation. The system of cultivation is still primitive. The land is first cleared, the trees are felled, stumps are removed, or on the steppes the soil is merely plowed. The ground is next sown with wheat for two or three years consecutively. It is then allowed to lie fallow, and subsequently is again sown with wheat. This rotation is continued until the ground shows signs of exhaustion. The land is then left completely uncultivated, and other fields are tilled. Ordinary soil, before being left to lie fallow for a long period, can be plowed and sown for three or four years in succession; the best black earth can be cultivated from twenty-five to thirty years. South of the Tobolsk province, there are fields which are known to have been cultivated uninterruptedly for one hundred years. The gradual impoverishment of the soil, however, has compelled the farmers to make use of manure, and on the northern borders of the cultivable zone of the Tobolsk province the following rotation of crops has been adopted: (1) Rye; (2) oats, barley, or corn; (3) fallow.

Taking good years and bad, the average cost per acre of raising cereals in the several districts of this zone is:

Cost of—	Southern portion of government of Tobolsk.		Central portion, government of Tomsk.	Cultivable zone of the government of Irkutsk.	Cultivable zone of the government of Yenisei.
	Richest soil.	Poorest soil.			
Ordinary tillage	$1.03	$0.64	$1.03	$1.03	$2.31 to $4.32
Ordinary harrowing	.62	.39	.515	.515	.....
Harvesting	3.86	1.92	3.605	$3.09 to 5.15	2.32 to 5.38
Thrashing	2.32	1.03	2.06	2.06	.67 to 1.85

The total expense, including the cost of harvesting and winnowing the grains, amounts to—

Tobolsk:	
Richest soil	$11.85 to $13.90
Poorest soil	7.73 to 10.30
Tomsk (central part)	11.30 to 13.90
Irkutsk	12.88 to 13.90
Yenisei	6.18 to 10.82

The abundance of the crop varies according to the system of cultivation adopted, and it is to be noted that the stories told by early travelers of the prodigiously fertile soil of Siberia relate only to exceptional years. At the present time, the annual harvest of cereal crops in Siberia yields 160,000,000 poods (2,880,960 tons), 20 per cent of which is produced by the governments of Tobolsk and Tomsk; 12 to 15 per cent by the governments of Yenisei, Irkutsk, and the province of Semirechensk; from 3 to 5 per cent by the provinces of Semipalatinsk, Akmolinsk, and Transbaikalia. The remainder comes from the provinces of the Yakutsk, Amur, and the Littoral. The harvest consists approximately of: Corn and oats, 60 per cent; rye, 20 per cent; other cereals, 20 per cent. The selling price per pood

(36.112 pounds) of cereals, leaving out the heavy fluctuations, is somewhat as follows:

Cereals.	Tobolsk.	Tomsk, average 25 years.	Irkutsk, average 7 years.
	Cents.	*Cents.*	*Cents.*
Rye	*10 to 12	†24	†62
Wheat	*25 to 30	†38	†98
Oats	10 to 11	20	63

*As grain. †As flour.

MINING IN ALASKA AND THE KLONDIKE.

Favorable reports have been received here concerning Forty Mile mining camp. The Tanana district in Alaska is creating quite a stir and dividing honors with the Koyukuk country. Men who have come from the Tanana claim they can get from 10 to 30 cents of pay dirt to the pan, and, as they are working in summer diggings with only from 2 to 3 feet to bed rock, it is as good as $1 a pan where one has to go 25 feet to bed rock. Many who left here with horses to take them overland from Fort Yukon to the Koyukuk found it hard work to cross the low, marshy country in that section and, hearing of the good prospects in the Tanana, changed their course and went to the new find, which is about 125 miles from Circle City, directly south.

Alaska is destined to be a wonderful mining country. The great necessity now is good roads, good camps, and the prospecting of comparatively unknown sections.

Great dissatisfaction was expressed at Dawson this spring after the wash-up by miners who worked for men who leased mining claims from the owners. The laymen sign contracts to work so many feet of the claim during the season, the owner to receive 50 per cent of the gold coming out of the claim, the lessee agreeing that all men working the property will be employed under a written contract, by which the men promise not to hold the claim in any way liable for their wages. It unfortunately has turned out in hundreds of cases that the cost of working the claims has taken more than 50 per cent of the output, the lessees' share. The men employed on the claims have thus been deprived of the wages they expected at the end of the season. Laymen on rich claims do very well, but the majority of Klondike claims can not be worked on a 50 per cent basis with the current rate of wages.

J. C. McCook,
Consul.

Dawson City, *June 20, 1900.*

INDUSTRIES OF SAULT STE. MARIE.

The industries of Sault Ste. Marie are rapidly becoming important. There are on the Canadian side of Sault Ste. Marie the Algoma Commercial Company, the Canadian Steel Company, the Sault Ste. Marie Pulp and Paper Company, and the Lake Superior Power Company.

American power companies are supplying power to the numerous companies above mentioned, and are also supplying the city of Sault Ste. Marie witn both electric and water power. They have at the present time a capacity for developing 16,800 horsepower by forty-two turbine wheels of 400 horsepower each. The intention is to construct an additional one of much larger capacity in the near future. The pulp company is turning out 150 tons of pulp per day, practically all of which goes to France, Germany, and England. The managers have a large sulphide plant under construction, which will be finished in a very few weeks, and have an output of 75 tons of chemical pulp per day. They also have very large iron works and manufacture a great deal of their machinery, including many electric appliances; and they have made in their own works the iron columns for their new buildings. They have also under way smelting works for the manufacture of pig iron, and, with the addition of the nickel ore received from their own mines at Sudbury, will make "ferro-nickel pig."

These companies also control on the American side of Sault Ste. Marie, Mich., the Lake Superior Power Company, the Union Carbide Company, American Alkali Company, and the Michigan Reduction Company.

They are constructing a canal on the Michigan side and water-power works which will contain three hundred and sixty turbine wheels with a capacity of 125 horsepower each. The capitalization is $3,500,000, and the works will cost that when completed. The water power on the Michigan side will also be used to run factories similar to those now on the Canadian side, with a carbide mill and an alkali factory in addition. The product of the carbide mill is owned by the Carbide Company, of Chicago, and the product of the alkali factory by the American Alkali Company, of Philadelphia.

CHARLES E. TURNER,
Consul-General.

OTTAWA, *July 31, 1900.*

MEXICAN-CHINESE TREATY OF COMMERCE.

I have the honor to inclose herewith in Spanish and in English, from the Diario Oficial, the treaty of friendship, commerce, and navigation between Mexico and China, signed at Washington, D. C., on December 14, 1899, by the Mexican ambassador and the Chinese minister, the ratifications of which were exchanged at the same place on June 19, 1900.

POWELL CLAYTON,
Ambassador.

MEXICO, *July 30, 1900.*

[From the Diario Oficial, July 24, 1900.]

The President of the United Mexican States and His Majesty the Emperor of China, being equally animated by the desire to establish friendly relations between the two countries and their citizens and subjects, have resolved to conclude a Treaty of friendship, commerce and navigation, and for that purpose have named their respective Plenipotentiaries, that is to say:

The President of the United Mexican States, Manuel de Azpíroz, Ambassador Extraordinary and Plenipotentiary of the United Mexican States in Washington, and

His Majesty the Emperor of China, Wu Ting-fang, an Official of the Second Rank, Minister of State of the Fourth Class by brevet, and Envoy Extraordinary and Minister Plenipotentiary to the United States of America, Spain and Peru;

And we, the said Plenipotentiaries, after having exhibited our respective full powers, and finding them in due and good form, have agreed upon the following articles:

ARTICLE I.

There shall be perpetual, firm and sincere friendship between the United Mexican States and the Chinese Empire, as also between their respective citizens and subjects. They shall be at liberty to freely go to the respective countries of the High Contracting Parties and reside therein. They shall there have complete protection in their persons, families and property, and they shall enjoy all the rights and advantages which are granted to the subjects of the most favored nation.

ARTICLE II.

In order to facilitate friendly relations between the two countries, the President of the United Mexican States may appoint a Diplomatic Agent to the Court of Peking and His Majesty the Emperor of China, may, likewise, appoint a Diplomatic Agent near the Mexican Government.

The Diplomatic Agents of each of the High Contracting Parties may reside permanently or temporarily in the Capital of the other, with their families and members of their suite, and enjoy, in the countries of their respective residence, the same prerogatives, exemptions, immunities and privileges granted to the Agents of the same rank of the most favored nation.

ARTICLE III.

Each of the High Contracting Parties may appoint, at the ports or cities of the other, open to foreign commerce, Consuls General, Consuls, Vice-Consuls and Consular Agents. These shall not enter in the discharge of their duties until they

receive the Exequatur of the Government of the Country where they are to reside. The Exequatur shall be issued free of charge. At the ports or cities where no Consul is appointed, his functions may be performed by a Consul of a friendly nation. Where there is no Consul, the local authorities shall see that the citizens or subjects of the other Contracting Party enjoy the benefits of the present Treaty.

The Consular Officers of the High Contracting Parties shall perform all the functions and enjoy all the immunities and privileges which, in either of the two countries, are granted to the Consular Officers of the most favored nation.

The Consular Officers shall not support the demands of their citizens or subjects if provocative or offensive to the authorities or inhabitants of their place of residence.

Should a Consular Officer adopt offensive conduct towards the laws of the country of his residence, the Exequatur may be withdrawn from him.

ARTICLE IV.

Mexican citizens shall be permitted to go into the interior of China and travel therein, provided they are furnished with a passport issued, at the request of the Mexican Consul, by the Customs Taotai. This passport, written in the two languages, Spanish and Chinese, must be shown when the authorities of the place of transit ask it, and returned at the end of the journey. No obstacle shall be placed in the way of travelers engaging men, vehicles or vessels for the transportation of their baggage.

In case the traveler is not provided with the proper passport, or he commits an unlawful act, he shall be delivered for trial to the nearest Consul of Mexico or of a friendly nation previously designated by the Mexican Government. In this case the local authorities can only arrest the traveler without insulting him or permitting any violence to him.

Mexican citizens shall be at liberty to make excursions without the necessity of providing themselves with a passport, in the neighborhood of the open ports, for a distance not exceeding one hundred li, and for a time not exceeding five days.

These stipulations are not applicable to the crews of vessels, who shall be subject, during their stay on land, to the regulations established by the Consuls and the authorities.

Chinese subjects shall be at liberty to travel through all the territory of Mexico, as long as they conduct themselves peaceably and do not violate the laws and regulations of the country.

ARTICLE V.

It is agreed between the two High Contracting Parties that the emigration of their respective subjects, whether accompanied by their families or not, shall be in future free and voluntary; consequently they disapprove of every act of violence or trickery which might be committed in the ports of China or anywhere else for the purpose of expatriating Chinese subjects, against their will.

The two Governments engage themselves to prosecute with all the rigor of the laws any contravention of the preceding stipulation and to impose penalties established by their respective legislations upon the persons and ships who may violate this stipulation.

ARTICLE VI.

Mexican citizens shall be at liberty to travel with their merchandise and engage in commercial pursuits in all the ports of China where the subjects of other nations are permitted to engage in commerce.

Chinese subjects shall, likewise, be at liberty to travel and engage in commerce in all places of the Mexican Republic, under the same conditions as the subjects

of all other nations. It is to be understood that, in case either of the High Contracting Parties should hereafter grant, of its own accord, to any other nation, advantages subject to special conditions, the other Contracting Party shall enjoy said advantages, only provided it complies with the conditions imposed therein or their equivalent, to be mutually agreed upon.

ARTICLE VII.

The citizens or subjects and merchant vessels of each of the High Contracting Parties shall be subject, at the ports of the other open to foreign commerce, to the legal provisions which now regulate commerce with all other nations or which may be issued hereafter.

ARTICLE VIII.

The import duties imposed in the United Mexican States on the produce of the soil and industry of China, and in the Empire of China on the produce of the soil and industry of Mexico, shall be no other nor higher than those to which the same produce of the most favored nation are or may be subject.

The same principle shall be observed in regard to exportation.

No prohibition nor restriction of importation or exportation shall take place in the reciprocal commerce of both countries, unless it be likewise applied to all other nations, except for sanitary motives or for the purpose of preventing the propagation of epizooties or the loss of crops, or also in view of events of war.

ARTICLE IX.

The ships of war of each of the Contracting Parties shall be admitted into the ports of the other, where those vessels of all other nations are allowed to enter, and to be treated as those of the most favored nation.

They shall have entire liberty to purchase provisions, coal and the necessary articles for a voyage, as also to get water and have all necessary repairs made.

The ships of war shall be exempt from the payment of all duties, both on their arrival and departure.

The Commanders of Mexican ships of war in China and the local principal authorities shall mutually treat each other on the basis of equality.

ARTICLE X.

The citizens or subjects of each of the Contracting Parties, in the dominions and possessions of the other, shall be exempt from all compulsory military service whatever, whether in the army, navy or national guard, or militia. They shall likewise be exempt from all contributions, whether pecuniary or in kind, imposed as a compensation for personal service, and, finally, from forced loans and from charges, requisitions, and war contributions, unless imposed on real property when they shall pay them equally with nationals.

The vessels, cargoes, merchandise or effects of citizens or subjects of neither Contracting Party shall be detained for any military expeditions or for any public purpose whatever without corresponding compensation first being agreed upon and settled.

ARTICLE XI.

The merchant vessels of each of the Contracting Parties shall be at liberty to frequent the ports of the other open to foreign commerce or that may hereafter be opened.

It is, however, agreed that this concession does not extend to the coasting trade, granted only to the national vessels in the territory of each of the Contracting Parties. But, if one of them should permit it wholly or in part to any nation or

nations, the other Party shall have the right to claim the same concessions or favors for its citizens or subjects, provided said Contracting Party is willing, on its part, to grant reciprocity in all its claims on this point.

The vessels of each of the Contracting Parties shall not be subject, in the territory or ports of the other, on their entrance, departure or stay, to other or higher duties, charges or fees of public officials on account of tonnage, light-house, port, pilotage, quarantine, salvage, assistance in case of damage or shipwreck, nor to other charges or duties, local or federal of whatever kind or denomination, than are paid or which may hereafter be paid by vessels of any other nation.

For the application of this and other articles of the present Treaty, those are to be understood as ports of each of the Contracting Parties, which are opened or that may hereafter be opened to the import and export trade by the respective Governments.

The two Contracting Parties agree upon considering a distance of three marine leagues, measured from the line of low tide, as the limit of their territorial waters, for everything relating to the vigilance and enforcement of the Custom-House regulations and the necessary measures for the prevention of smuggling.

The vessels of each of the High Contracting Parties which may have been disabled near the coasts of the other and may have to seek shelter in a port, shall receive from the local authorities all the assistance which they can render.

The merchandise saved shall not be subject to the payment of duties, unless it shall be landed for the purpose of sale.

Such vessels shall be treated on the same terms as are granted under similar circumstances to those of other countries.

ARTICLE XII.

The engagement by contract of citizens or subjects of one country as laborers, servants or the like in plantations, mills, shops, business establishments or private families in the other country, shall be subject to rules to be established by mutual agreement between both High Contracting Parties.

ARTICLE XIII.

Mexicans in China who may have occasion of complaint against Chinese, shall lay their complaint before the Mexican Consul, who shall investigate the facts of the case and exert himself to bring about an amicable settlement.

If a Chinese should likewise, have any occasion of complaint against a Mexican in China, the Mexican Consul shall listen to his complaint, and try to obtain a friendly settlement. Should the Consul be unable to reconcile the parties, the case is then to be submitted, in all equity, whether the plaintiff be a Mexican or a Chinese, only to the Court to which the accused is subject.

ARTICLE XIV.

Mexican citizens in China who may commit any crime against Chinese subjects, shall be arrested by the Mexican Consular authorities and punished in accordance with the laws of Mexico.

Chinese subjects guilty of criminal acts against Mexican citizens in China, shall be arrested and punished by the Chinese authorities in conformity with the laws of China.

As a general rule, every civil or criminal suit instituted in China, between the citizens or subjects of the two Contracting Parties, shall be tried only according to the laws and by the authorities of the country to which the defendant or accused belongs.

The High Contracting Parties shall not be bound to reimburse any money that has been stolen or obtained by fraud, or owing by a citizen or subject of one of the

two countries to a subject or citizen of the other country. In case of robbery or fraud the proceedings to be instituted shall be in accordance with the laws of the country to which the accused belongs, and in case of debt, the authorities of the country of the debtor shall do all they can to make the debtor comply with his obligation.

Should Chinese subjects in China, who are principal actors or accomplices of a crime, take refuge in the houses, warehouses or on board the merchant vessels of Mexican citizens, the Chinese authorities shall lay the facts in this case before the Mexican Consular Officers, and they shall conjointly appoint agents for the apprehension of the criminals, who shall not be protected nor hidden.

ARTICLE XV.

All legal questions that may arise in China between Mexican citizens concerning their persons or property shall be subject to the exclusive jurisdiction of the Mexican authorities. Suits instituted in China between Mexican citizens and foreigners shall be decided only by the authorities of their respective countries.

When Chinese shall be concerned in suits, the proceedings shall be in accordance with the provisions of the two preceding articles.

Should the Chinese Government think proper, hereafter, to establish, in accord with foreign powers, a code for the purpose of settling the matter of jurisdiction over foreign subjects in China, Mexico shall have an equal share in said agreement.

ARTICLE XVI.

Persons, of whatever condition they may be, who may land from vessels of one of the High Contracting Parties, at an open port of the other, and cause any disturbance on shore, within twenty four hours of their landing, shall be punished by the proper local authorities, but only with fine or imprisonment in accordance with the usages established at said port.

The questions arising from collisions in Chinese waters between vessels of the two countries, shall be decided by the authorities of the accused in accordance with the legal regulations in force in all countries respecting collisions.

Should the complainant not be satisfied with the decision, the agents of the country to which he belongs shall be authorized to apply officially to the authorities that have tried the offender, and they shall retry the case and give a final and equitable decision on the same.

ARTICLE XVII.

Chinese subjects in Mexico shall have free access to the judicial tribunals of the country for the defense of their legitimate rights. They shall enjoy, in this respect, the same rights and concessions enjoyed by Mexicans or by subjects of the most favored nation.

ARTICLE XVIII.

This Treaty shall be engrossed in the three languages Spanish, Chinese and English; the Spanish text shall be observed in Mexico, the Chinese text in China, and, in case of disagreement, the English version shall be decisive.

ARTICLE XIX.

This Treaty shall remain in force for ten years reckoned from the day of the exchange of ratifications. The High Contracting Parties can, at the expiration of that time, propose modifications by means of a notice to be given six months in advance; and if neither of them should do so, the Treaty shall continue to remain in force in all its provisions until the expiration of one year after one of the Parties has expressed to the other its intention of terminating it.

ARTICLE XX.

This Treaty shall be ratified by the two High Contracting Parties and the ratifications shall be exchanged at Washington, as soon as possible.

In witness whereof, we, the respective Plenipotentiaries, have signed this Treaty and have hereunto affixed our respective seals.

Done at Washington, in two originals in the three languages Spanish, Chinese and English, this fourteenth day of December of the year One thousand eight hundred and ninety nine of the Christian era, corresponding to the twelfth day of the eleventh moon of the twenty-fifth year of Kwang-Hsu.

[SEAL.] MANUEL DE AZPÍROZ.
[SEAL.] WU TING-FANG.

RAILWAY CONTRACT IN MEXICO.

Mr. McCreery, secretary of legation at Mexico, sends under date of July 10, 1900, copy of the contract between the Mexican Government and S. Pearson & Son (of London) relating to the Tehuantepec Railroad and the ports of Coatzacoalcos and Salina Cruz. This transcontinental railroad, says the secretary, crossing the Isthmus of Tehuantepec, promises to become a most important means of transportation when the improvements on the line are made and the port works completed:

The main features of the contract are given below:

The company, as the representative of the Government, shall within three and a half years improve the railroad by making durable bridges and culverts, correcting the curves and grades, ballasting the track, building houses, providing rolling stock, etc.; and shall administer in partnership with the Government the railway and the ports of Coatzacoalcos and Salina Cruz. At least two trains shall run weekly from each of the terminal stations, the journey for passengers not to exceed fourteen hours. The company shall have the earnings of the railroad and ports, except the part that belongs to the Government. The latter will also pay $5,000,000* in monthly installments of $300,000, the first in three months after promulgation of contract. The company shall exercise the rights and fulfill the obligations contained in contracts in force at the time it enters into possession.

The Executive may appoint inspectors, and the Department of Communications and Public Works is to examine plans of the works. Monthly accounts are to be rendered.

The capital of the company is $5,000,000; the losses are to be divisible half and half between the Government and the company, and the profits are to be divided. The capital is furnished in equal shares by both parties. The contract is to last fifty years after the termination of the work; in case, however, the operation of the railway or ports is attended with a loss of $4,000,000, the company can rescind the contract, notifying the Government six months in advance. The company may connect the railway with any other road, or acquire an interest in other roads or in navigation companies, or own or charter vessels, and may extend the road along the docks. It may also import free of custom duties and all imposts, for the exclusive use of the railroad, fixed material for the track, rolling stock, telegraph

*The values are expressed in Mexican currency. The United States Treasury valuation of the Mexican dollar, July 1, 1900, was 47.6 cents.

material, miscellaneous machinery and articles; also, for the ports, floating material, as well as provisions for the crews and passengers of craft or plant operated by the company. In regard to other material for the railway and port services, the Government shall make the company an allowance of $50 per annum for every kilometer of railroad in operation, unless there is a paralysis of traffic on any part of the line, when the allowance will be suspended with respect to that portion.

The company is granted, free from all expenditure, the right of way, use of lands and water, of stone, etc., on lands belonging to the Federation. It may have condemned private property that is necessary for the construction or maintenance of the railway or ports. It may also make surveys and studies on private property.

The maximum rates for traffic are to be: Passenger, first class, 4 cents; second class, 3 cents; third class, 2 cents; merchandise per metric ton, from 3 cents for sixth class to 8 cents for first class. Rates on domestic merchandise shall be differential and on a decreasing scale. The distribution of merchandise among the six classes shall be effected, in concert with the Department of Communications and Public Works, every three years. Cereals shall always be counted in the third class; rails and the like shall enjoy a rebate of 30 per cent from the third-class rate; the charge for coal will be 1½ cents per ton per kilometer if in carload lots and destined for consumption in Mexico. The Government shall have a rebate for the transportation of coal, troops, immigrants, etc. Mail is to be carried free.

Rates for telegrams shall be, for every ten words sent 100 kilometers, 15 cents.

At the ports of Coatzacoalcos and Salina Cruz, the ships and passengers will have to pay port-captaincy dues, pilotage dues, and sanitary dues equal to half of the lowest rate at Veracruz or Tampico; also a transit due of 40 cents per ton of merchandise or per passenger; also a loading due of 25 cents per ton of merchandise, unless this is transferred to another ship. Merchandise imported for local traffic does not enjoy the franchises enumerated.

The vessels belonging to the maritime services shall enjoy a 25 per cent reduction in sanitary and pilotage dues and 50 per cent in other dues in other ports of the Republic. No consular invoices are required for merchandise transported over the railway to be reshipped. Merchandise will be examined at its final destination. No passports will be required of persons in transit.

If, when the contract is ended, there are improvements or material therefor, the value of the same is to be represented by the bonds issued, and shall be paid for by the Government, so that the bonds may be redeemed and the floating debt paid, unless the Government shall decide to take upon itself the obligations connected with said bonds and debt. From the other securities belonging to the company, the Government and the company shall be paid for the capital invested and the surplus divided.

If it is necessary to enlarge the railway or ports, the company can borrow money, offering as security the proceeds of the works. This lien shall have priority next after the mortgage on the railway constituted as security for £2,700,000 ($13,139,550) in 5 per cent bonds, or, in lieu thereof, the larger sum to be agreed upon, not to exceed £4,500,000 ($21,899,250).

The Government may avail itself of the ships of the company, in case of war, on payment of a monthly remuneration.

For the use of each port, the company may collect a tax, the maximum of which will be $1 per ton of merchandise or 50 cents for transshipped merchandise. The company may organize a navigation company distinct from that exploiting the railway, to carry on a maritime service in the Pacific; the same may take charge of the service in the Gulf of Mexico or the Atlantic.

To guarantee the fulfillment of its obligations, the company shall deposit within a month from the date of the contract, in the National Bank, $100,000 in 5 per cent

bonds or $200,000 in 3 per cent bonds. The Government binds itself not to grant during the period of this contract any concession for the operation of railways or ports within 50 kilometers of these works, without detriment to rights acquired by prior concessions. It will not authorize railway lines, which now have the right to connect with the Tehuantepec Railway, to make special transit rates from the Gulf to Mexico over this railway.

The contract of June, 1896, with Pearson & Son is rescinded.

MONOPOLIES IN THE DEPARTMENT OF PANAMA.

The following has been received from Consul-General Gudger, of Panama:

It is an interesting fact that the greater part of the revenue of this country is derived from the sale by the Government to private parties of the exclusive rights to carry on certain kinds of business.

The particular articles of trade for which these monopolies are created are those from which sure and high profits are expected to be derived and for which there is a constant and steady demand in this country.

As an example, I mention the following as the most desirable commodities to those seeking concessions: Tobacco, cigarette, salt, matches, ice, opium, beef, gambling.

The concessions for articles of a decided mercantile value cover the right of importing, buying in the Department, and selling the article, to the exclusion of all competitors. These concessions are placed for sale every year by the Government and go to the highest bidder, generally for a period of one year. For 1900, the tobacco concession sold for $55,000 (about $26,400 gold) and was divided into two divisions. The concession for cigarettes was sold for $30,000 ($13,200 gold) to one party and the concession for tobacco, cigars, etc., was sold for $25,000 ($11,000 gold). The gambling concession was also divided into two parts. The lottery, which consists of prizes and drawings for which tickets are sold, brings the Government something like $42,000 ($18,500 gold) per annum; while the right to carry on gambling games, consisting of roulette tables, dice tables, slot machines, wheels of fortune, and other devices of this character, was bought for $69,000 ($30,400 gold). Thus, the gambling right alone for the Department brings the Government annually over $100,000 ($44,000 gold). It can readily be seen how desirable these monopolies are, if they can be secured for anything like a reasonable price. Salt, for instance, is well known to be an absolute necessity, and yet the persons buying the salt concession have complete control of the supply, price, and grade of salt to be sold in this market. The same is true of matches.

EXPORT DUES IN COLOMBIA.

The decree of April 24, 1900,* providing for an enforced expropriation for the benefit of the Government of a portion of all export products, or, in lieu thereof, the payment of an export duty of 20 per cent ad valorem, has been repealed, and in its stead a new decree was promulgated on June 11, which imposes duties upon Colombian exports as follows:

Each quintal (100 pounds) of rubber will pay 5 pesos Colombian currency ($2.19 in United States gold).†

Each quintal of coffee in grain will pay 3.20 pesos Colombian currency ($1.40).

Each quintal of coffee in husk will pay 2.40 pesos Colombian currency ($1.05).

Each quintal of cattle hides will pay 3.20 pesos Colombian currency ($1.40).

Each quintal of goatskins will pay 4.50 pesos Colombian currency ($1.97).

Gold and silver bars assayed will pay 2 per cent of the value converted into paper currency at the price of exchange at the time of the exportation.

Gold in dust, gold and silver bars not assayed, and gold and silver in jewelry or other form will pay 2 per cent of the value converted into paper money.

In the absence of certificates of assay and insurance, gold will pay 10 centavos (4.38 cents) for each gram; silver, 10 centavos for each gram; mineral in crude state, 16 pesos ($7) per ton.

The Government also gives notice that the above-named duties may be increased or decreased or made payable in gold, as its necessities may require.

W. IRVIN SHAW,
Consul.

BARRANQUILLA, *June 29, 1900.*

IMPORTS AND EXPORTS OF PUERTO CABELLO.

Consul Ellsworth sends from Puerto Cabello, under date of May 28 and June 15, 1900, itemized statistics of imports and exports of his consular district for the twelve months ended December 31, 1899.

European and Cuban markets, he says, get the majority of the exports, because they offer better prices than can be obtained in the United States.

The tables follow.

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*See ADVANCE SHEETS No. 780 (July 14, 1900).

†According to the United States Treasury valuation July 1, 1900, 1 peso=43.8 cents.

Imports of Puerto Cabello, Venezuela, consular district for year ended December 31, 1899.

Articles.	United States.		England.		France.		Germany.		Holland.		Italy.		Spain.		Total.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Pounds.	*Dollars*	*Pounds.*	*Dollars*	*Pounds.*	*Dollars*	*Pounds.*	*Dollars*	*Pounds.*	*Dollars*	*Pounds.*	*Dollars*	*Pounds.*	*Dollars*	*Pounds.*	*Dollars.*
Apples	1,992	70													1,992	70
Acid	1,515	20					23,109	3,530							24,624	3,550
Ale			20,896	135											20,896	135
Alcohol							144	57							144	57
Animals	25	15													25	15
Almanacs	1,359	140													1,359	140
Axletrees							6,977	339							6,977	339
Butter	132,125	23,031			568	230	111,965	27,222			48	11	4,520	1,030	249,226	51,524
Bottles, empty	3,050	1,066					996,793	7,007							999,843	8,073
Buttons	13	38			492	94	1,630	1,218					50	3	2,185	1,353
Bicycle materials	22	29													22	29
Barley	16,709	6,220					168,862	5,636							185,571	11,856
Bacon	343	37													343	37
Building materials	32,003	2,264			1,400	228	1,765	94							35,168	2,586
Beeswax	131	14													131	14
Blacking	474	59			184	8									658	67
Beans	9,896	283					6,336	136							16,232	419
Bluing			106	12	11	10	3,213	953							3,330	975
Boxes	750	110					48	12							798	122
Brushes			78	53	226	191	387	173	140	45					831	462
Belts	3	4	28	15	4	2							105	98	140	119
Braid							583	226							583	226
Bugles							21	8							21	8
Brass							83	8							83	8
Brooms							16	1							16	1
Biscuits	63,774	4,039			62	13	19,322	1,284					184	28	80,342	5,364
Beef	2,362	148									143	62	160	19	2,665	229
Bath bricks			298	5											298	5
Billiard materials	14	43													14	43
Barrels, empty	1,476	140													1,476	140

Imports of Puerto Cabello, Venezuela, consular district for year ended December 31, 1899—Continued.

Articles.	United States.		England.		France.		Germany.		Holland.		Italy.		Spain.		Total.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Pounds.	*Dollars*	*Pounds.*	*Dollars*	*Pounds.*	*Dollars*	*Pounds.*	*Dollars*	*Pounds.*	*Dollars*	*Pounds.*	*Dollars*	*Pounds.*	*Dollars*	*Pounds.*	*Dollars.*
Barrel staves	2,729	172													2,729	172
Beer preparation							71,123	4,319							71,123	4,319
Beer			966	35			35,243	2,552							36,209	2,587
Crockery			12,637	2,090			21,210	2,002							33,847	4,092
Cutlery	1,051	318	30,532	3,330			1,108	219	47	60	22	57			32,760	3,984
Carts	216	10													216	10
Car materials	292	14					1,791	82							2,083	96
Cement	140	14	34,912	500			147,032	1,732	39,600	159					221,684	2,405
Cheese	902	714	1,615	45	958	80	12,433	1,988	54,806	8,923	1,603	552	4,934	418	77,251	12,720
Cigarettes	2,954	709													2,954	709
Cigarette paper													2,713	677	2,713	677
Corkscrews							17	8							17	8
Corks					1,474	1,005	1,641	2,463	1,148	402			1,210	350	5,473	4,220
Copper	33	18					1,213	273	9	2					1,255	293
Combs	146	93	4	6	794	374	1,830	1,519							2,774	1,992
Corsets					188	27	48	29							236	56
Confectionery					564	149	458	202			79	15	617	154	1,718	520
Canned goods	56,419	8,209			25,187	2,838	39,184	5,882			2,697	920	13,103	1,383	136,590	19,232
Cabbage							24	25					53	16	77	41
Crowns, mourning			364	25											364	25
Cornstarch	34,043	1,728													34,043	1,728
Cornsheller	389	40													389	40
Cinnamon	4,302	466													4,302	466
Candles:																
Tallow	9,353	1,000													9,353	1,000
Wicks	976	91					28	16							1,004	107
Materials	464	145													464	145
Sticks							89	32							89	32
Stearin	272	17					1,963	153	26,187	2,307					28,422	2,477
Collars					77	114	462	645					134	153	673	912

Coal	1,201,833	4,811	6,000,000	24,000			842,595	5,597							8,044,428	34,408
Cutlasses			12,265	940			4,620	338							16,885	1,278
Corn	98,323	858													98,323	858
Coolers, water	65	10													65	10
Clasps					23	12									23	12
Canes							148	36							148	36
Chain, steel					48	8									48	8
Carriage materials							60	9							60	9
Church effects													2,000	116	2,000	116
Calendars					706	132									706	132
Cartoons							924	102							924	102
Cards							16	10							16	10
Chromos							183	25							183	25
Cheese, curd							173	14							173	14
Cord, silk							11	8	11	135					22	143
Cloth:																
Cotton	154,232	47,881	829,032	201,411	24,715	15,085	109,697	25,349	35,123	21,971	6,307	3,745	716	553	1,159,822	315,995
Asbestus			72	30			65	9							137	39
Oil	3,026	503	158	30	118	12	125	39							3,427	584
Table							10,165	4,484			180	42			10,345	4,526
Linen	26,772	4,413	20,396	4,450	84	64	3,060	1,483	2,730	441					53,042	10,851
Veils					7	20	6	7							13	27
Stockings	70	41	16	45	758	417	213	820							1,057	1,323
Napkins					195	100	40	10							235	110
Duck					213	820									213	820
Mosquito net	40	15					4,617	1,197							4,657	1,212
Ganvas	28,396	7,250	15,529	1,085			294	476	530	62					44,749	8,873
Blankets	3,438	463	942	190			1,419	24	552	67					6,351	744
Metallic							56	987							56	987
Prints	80,658	28,681	73,422	22,010	658	220	1,173	3,485	3,136	921					159,047	55,317
Coverlets							19,415	9							19,415	9
Cassimere	187	260			846	1,139	39	6	470	294					1,542	1,699
Drill	56,959	11,028	2,475	390	1,065	289	82	618	32,648	8,389	3,249	1,128	15,000	3,852	111,478	25,694
Merino							646	64							646	64
Woolen			6,072	2,445	314	220			1,073	518			316	23	7,775	3,206
Worsted							1,477	528							1,477	528
Spreads	459	177													459	177
Flannel	1,000	208	23,804	6,940	3,680	1,573			3,025	1,186					31,509	9,907
Striped	646	128													646	128

Imports of Puerto Cabello, Venezuela, consular district for year ended December 31, 1899—Continued.

Articles.	United States.		England.		France.		Germany.		Holland.		Italy.		Spain.		Total.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Cloth—Continued.	*Pounds.*	*Dollars*	*Pounds.*	*Dollars*	*Pounds.*	*Dollars*	*Pounds.*	*Dollars*	*Pounds.*	*Doll rs*	*Pounds.*	*Dollars*	*Pounds.*	*Dollars*	*Pounds.*	*Dollars.*
Emery							200	63							200	63
Silk	5	5			286	620	191	221							482	846
Cushion	1,317	48													1,317	48
Cravats	32	2													32	2
Towels							78	300			97	20	210	87	385	407
Henriette							42	146							42	146
Ribbons					132	400	355	1,436							487	1,836
Pique					50	30									50	30
Laces					343	316	118	1,028							461	1,344
Sashes							22	40							22	40
Handkerchiefs			11,826	6,735	124	203	1,388	413	537	471					13,875	7,822
Madapolan					88	82	539	123							627	205
Satin					22	15	1,808	986	420	140	127	35			2,377	1,176
Waterproof					22	15									22	15
Embroideries							942	1,523							942	1,523
Sacking			125,108	10,870			22,701	8,349	25,100	1,449					172,909	20,668
Muslins			1,162	720	109	90	564	548							1,835	1,358
Nansook					154	106									154	106
Mohair							2,133	743							2,133	743
Felt	365	200													365	200
Velvets			62	40											62	40
Billiard	6	20													6	20
Clotheshorses	4	10					183	110							187	120
Carpets			214	75	74	20									288	95
Demijohns							8,920	430							8,920	430
Dentist tools	13	37													13	37
Drugs and medicines	134,626	19,473	117,747	3,300	16,597	8,735	106,615	15,441	342,039	39,083			760	93	718,384	86,125
Glycerins							172	15							172	15
Gum arabic							371	88							371	88
Glue							190	38							190	38

Potash	3,231	67													3,231	67
Gelatin	209	18					60	37							269	55
Sulphur	1,606	26													1,606	26
Soda	16,760	412													16,760	412
Disinfectant	242	31					3,172	344							3,414	375
Desk materials	283	69			378	101	35	6							696	176
Earthenware							4,123	340			187	38			4,310	378
Elastics	224	186													224	186
Extracts	1,095	124													1,095	124
Electric-light materials	13,690	1,379					38	107							13,728	1,486
Files									73	40					73	40
Firecrackers	200	134													200	134
Fruits, dried	192	20			310	29	97	9			396	57	757	63	1,752	178
Fruit juice	17	10			504	55									521	65
Flour:																
Wheat	953,936	52,675													953,936	52,675
Barley	75	4					288	126							363	130
Fish, dried	136,151	3,084											496	8	136,647	3,092
Furniture	7,795	958			3,327	1,205	2,193	1,334							13,315	3,497
Fish lines	3,004	537													3,004	537
Fasteners, wire	3,270	150													3,270	150
Fancy articles					888	940									888	940
Fireworks	2,177	164													2,177	164
Fans	19	18					28	27							47	45
Gold, crude		29														29
Garlic													126	2	126	2
Grapes	606	33													606	33
Glass	8,699	453			52	12	8,283	289							17,034	754
Grocers' sundries			3,987	209			3,177	433							6,164	642
Galvanized ware							493	46							493	46
Gloves		62			26	156									26	156
Glassware	2,169	2,544					650	30			895	55			3,714	147
Hops	990	10	918	753			1,945	1,048							3,853	4,345
Horse collars	17														17	10
Hams	18,287	3,971					386	82							18,673	4,053
Hats:																
Materials for					759	1,267	8,434	7,812							9,193	9,079
Straw			273	105	141	162	139	138			31	31			584	436
Velvet							223	860			147	643			370	1,503

Imports of Puerto Cabello, Venezuela, consular district for year ended December 31, 1899—Continued.

Articles.	United States.		England.		France.		Germany.		Holland.		Italy.		Spain.		Total.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Pounds.	*Dollars*	*Pounds.*	*Dollars*	*Pounds.*	*Dollars*	*Pounds.*	*Dollars*	*Pounds.*	*Dollars*	*Pounds.*	*Dollars*	*Pounds.*	*Dollars*	*Pounds.*	*Dollars.*
Hay	35,485	227													35,485	227
Hair seives	22	1													22	1
Hardware	61,088	5,282	46,400	2,236	2,336	419	112,715	3,196	16	1					222,555	11,134
Hooks and eyes							46	20							46	20
Hearse fixtures	259	147													259	147
Hammocks			1,132	382			68	38							1,200	420
Iron for buildings	2,930	243	86,122	3,050	270	210	4,222	308							93,544	3,811
Ink	768	85			140	25	972	70							1,880	180
Ironware			306	29	2,248	375	4,259	426							6,813	830
Isinglass			402	25			938	50							1,340	84
Jewelry	378	285	2,062	80	248	209	307	199			23	386			3,018	1,159
Kegs, empty							1,225	357							1,225	357
Leather	1,050	1,905	101	90	1,452	2,216	5,944	5,525			110	133			8,657	9,869
Lard	381,814	30,690											4,200	800	386,014	31,490
Liquors	1,074	71	10,065	4,707	31,904	10,347	18,885	2,263	3,831	980	178	34	913	98	66,850	18,500
Lamps	4	1			148	5	348	183							500	189
Letterpresses	4	6	90	11			34	9							128	26
Lanterns							147	15	22	6					169	21
Lithograph materials					35	29									35	29
Leaves, orange							14	18							14	18
Mustard	68	14													68	14
Malt extract	420	44					1,186	135							1,606	179
Music boxes	81	45													81	45
Machinery	49,770	5,175	10,949	70	9,011	866	103,012	8,934							172,742	15,045
Mills							58	29							58	29
Mouthpieces							56	69							56	69
Mirrors					846	77	150	28	72	20			71	50	1,139	175
Metal							44	38							44	38
Mantels							24	88							24	88
Manometer							68	38							68	38

Mattresses							6	3							6	3
Millinery					94	111									94	111
Mills:																
Wind	2,343	225													2,343	225
Coffee											26	11			26	11
Miscellaneous			184	11					11,505	1,422					11,689	1,433
Needles					84	23	127	68	3	9					214	100
Nails, brass	7	2					9,579	267							9,586	269
Nuts					180	18					550	53	574	51	1,304	122
Nickel, manufactured							32	32							32	32
Onions	27,681	784	3,464	224	2,720	50	1,118	15	3,841	48	3,824	133	25,300	371	67,948	1,589
Oakum	708	37													708	37
Oats							83	6							83	6
Oat meal	310	14													310	14
Oil:																
Kerosene	1,598,908	31,083													1,598,908	31,083
Fish	377	62													377	62
Machine	13,566	384	796	55			2,290	54							16,652	457
Lubricating	1,889	62													1,889	62
Almond	2,543	277	560	82			1,648	122	328	39			3,360	323	8,439	843
Bone	116	3													116	3
Sweet			1,681	135	7,577	947	4,923	515			11,686	1,446			25,867	3,043
Palm	414	22													414	22
Linseed	176	17	2,894	159			4,704	238	1,170	64					8,944	478
Codfish	417	95					343	96							760	191
Olive	244	18			55	13					400	57	115,335	6,276	116,034	6,364
Oars	5,027	150													5,027	150
Olives	30,114	268			930	100	396	20			660	57	1,927	172	34,027	617
Phosphate	3,683	387					81	21							3,764	408
Pipes:																
Iron					8,188	380	365	27							8,553	407
Materials for			58	15											58	15
Sewer	424	25													424	25
Potatoes							1,652	48							1,652	48
Pepper							346	82							346	82
Pickles	61	51	560	25	1,432	162	876	41	1,870	250	490	1,500	42	7	5,331	2,036
Paints	13,108	1,253	312	30			17,237	1,042							30,657	2,325
Pins	10	15					19	6							29	21
Perfumery	6,593	1,802			28,293	8,712	15,341	5,750	360	137					50,587	16,401

Articles.	United States.		England.		France.		Germany.		Holland.		Italy.		Spain.		Total.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Pounds.	*Dollars*	*Pounds.*	*Dollars*	*Pounds.*	*Dollars*	*Pounds.*	*Dollars*	*Pounds.*	*Dollars*	*Pounds.*	*Dollars*	*Pounds.*	*Dollars*	*Pounds.*	*Dollars.*
Pumps	2,890	129													2,890	129
Packing	79	5													79	5
Pitch									714	12					714	12
Physical instruments					824	340									824	340
Photograph materials	446	215													446	215
Phonograph materials	6	8													6	8
Pictures	776	60	48	26											824	86
Picture frames							13	7							13	7
Pencils	44	35													44	35
Pails							78	8							78	8
Porcelain ware					396	50	626	97							1,022	147
Pickaxes							1,029	23							1,029	23
Pharmacy articles							357	101							357	101
Pledges							89	240							89	240
Paper:																
Wrapping	100	25	152	15	1,144	400	14,829	1,209							16,225	1,649
Miscellaneous	6	1			2,102	75	51,031	1,704	1,500	69					54,639	1,849
Sand	142	11													142	11
Printers' ink	244	91													244	91
Pans	20	23					14	29							34	52
Penholders					264	60									264	60
Printing materials	644	170	1,072	106	14	1	39,981	911							41,711	1,188
Plows					340	30									340	30
Preserves	640	51	1,218	200	344	46	548	45	570	44					3,320	386
Plants	1,305	53					242	4							1,547	57
Pots, flower	1,545	61													1,545	61
Portemonnaies							22	28							22	28
Pasteboard	278	5	102	12	1,262	29	83	42							1,725	88
Pianos							944	183							944	183
Materials for							75	10							75	10

Pipes, smoking							9	5							9	5
Rivets	150	10													150	10
Rice			8,895	375			1,341,177	32,382			1,012	48			1,351,084	32,805
Rosin	369,401	3,097					4,690	203							374,091	3,300
Rope	124,876	14,592													124,876	14,592
Rubber:																
Tubes	338	90	124	178	75	93									537	361
Manufactured							269	271							269	271
Railway materials			157,178	4,314											157,178	4,314
Raisins											136	19			136	19
Soap	198	40			27	6	178	16							403	62
Scales	1,860	240													1,860	240
Sewing machines	432	85													432	85
Seed:																
Anise	821	53			1,134	108	1,511	108					2,450	189	5,916	458
Cumin	3,462	170			3,964	312	5,420	972							12,846	1,454
Canary	92	4					3,639	95					2,100	32	5,831	131
Propagating	10	7													10	7
Miscellaneous	490	278					3,927	162					11,460	637	15,877	1,077
Sausages	199	34			34	14	712	200			301	76	964	110	2,210	434
Sauces	137	8					128	22							265	30
Stationery	4,103	762	9,585	1,639	6,129	1,444	68,088	3,229	44	9	3	8	2,166	186	90,118	7,277
Siphons					36	10									36	10
Stones							182	20							182	20
Steel	17	30													17	30
Safes (refrigerators)	288	14					4,815	414							5,103	428
Salt	2,819	39					8,720	135							11,539	174
Statuary	96	12			464	670					20	9			580	691
Stoves			296	15	88	10	934	38							1,318	63
Straw	1,730	78													1,730	78
Silver, plated	288	30													288	30
Sardines			960	110	277	32	5,016	270							6,253	412
Spuns, iron			68	37											68	37
String	9,968	1,561			14	20	157	528							10,139	2,109
Shirts							320	426					110	193	430	619
Shoes, rubber	44	18			96	55	452	576							592	649
Shoe lasts							321	503							321	503
Strainers							24	23							24	23
Spices	15,843	1,933			3,304	221	591	71			1,105	148			20,843	2,373

Articles.	United States.		England.		France.		Germany.		Holland.		Italy.		Spain.		Total.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Pounds.	*Dollars*	*Pounds.*	*Dollars*	*Pounds.*	*Dollars*	*Pounds.*	*Dollars*	*Pounds.*	*Dollars*	*Pounds.*	*Dollars*	*Pounds.*	*Dollars*	*Pounds.*	*Dollars.*
Soup paste											345	19			345	19
Sago							7,546	430							7,546	430
Surgical instruments							257	195							257	195
Slates					193	9									193	9
Scissors					308	56									308	56
Syringes	11	3			34	8									45	11
Tobacco	17,852	4,276													17,852	4,276
Timber	35,926	198													35,926	198
Thermometers	4	6			88	120	6	8							98	134
Tin, manufactured	272	95	10,460	360			419	201							11,151	656
Telephone materials	351	126													351	126
Tools	9,344	1,064	30,603	2,956			12,611	1,470							52,558	5,490
Tallow	358	35													358	35
Tapioca	30	15													30	15
Tacks	660	50													660	50
Turpentine	7,029	504													7,029	504
Thread	121	85	10,817	7,457	3,508	752	13,488	2,427	660	182					28,594	10,903
Tramway materials	194	10													194	10
Toys	5,053	634			1,465	317	2,832	540	781	143					10,131	1,634
Ties							126	14							126	14
Tanks							11	59							11	59
Type	74	53													74	53
Tar	1,078	20													1,078	20
Tubes	88	34	1,266	47	60	30	74	209							1,488	320
Typewriters	178	313													178	313
Tea							161	21							161	21
Umbrellas					521	250	1,491	371			246	75			2,258	696
Underwear			1,500	190			7,149	3,519	3,000	500			7,434	3,227	19,083	7,436
Velocipedes	168	12					132	110							300	122
Valises	13	8			356	40									369	48

Vaselines	90	9	.....	.....	.....	.....	132	12	.....	.....	.....	.....	.....	.....	222	21
Vinegar	554	70	.....	.....	443	10	1,280	36	.....	.....	.....	.....	1,760	30	4,037	146
Vignettes	.....	.....	.....	.....	.....	.....	44	30	.....	.....	.....	.....	.....	.....	44	30
Violins	5	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	9
Violin strings	6	48	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	48
Vermicelli	5,238	137	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5,238	137
Vegetables	12,153	303	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	12,153	303
Varnish	88	16	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	88	16
Wire fencing	183,467	4,290	.....	.....	.....	.....	941	407	89	11	.....	.....	.....	.....	184,497	4,708
Water:																
Mineral	.....	.....	155	13	13,470	496	32,095	1,542	.....	.....	537	19	112	1	46,369	2,071
Orange	.....	.....	.....	.....	94	5	.....	.....	.....	.....	.....	.....	.....	.....	94	5
Wines	.....	.....	808	165	177,237	9,835	20,214	1,696	.....	.....	177,531	19,444	322,207	11,974	697,997	43,114
Wicks	202	45	.....	.....	1,685	323	1,755	1,180	.....	.....	.....	.....	.....	.....	3,642	1,548
Wood, manufactured	7,730	78	1,042	13,410	.....	.....	238	64	.....	.....	.....	.....	.....	.....	9,010	13,552
Wheels	1,144	79	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,144	79
Wire	233,770	2,516	2,608	185	.....	.....	2,545	127	.....	.....	.....	.....	.....	.....	238,923	2,828
Yarn	1,020	150	532	90	64	40	449	105	.....	.....	.....	.....	.....	.....	2,065	385
Zinc	.....	.....	.....	.....	.....	.....	259	46	.....	.....	.....	.....	.....	.....	259	46
Total	6,665,165	365,822	7,754,543	336,340	410,054	81,644	4,481,150	253,515	599,780	91,011	215,391	31,086	550,649	33,853	21,036,732	1,193,271

Exports of Puerto Cabello, Venezuela, consular

	Articles.	United States.		England.		Cuba.		France.	
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
		Pounds.	*Dollars*	*Pounds.*	*Dollars*	*Pounds.*	*Dollars.*	*Pounds.*	*Dollars.*
1	Beer								
2	Barley (refuse)								
3	Beans							176	8
4	Tonka	485	246						
5	Beef, dried or jerked					62,681	5,037		
6	Bones for fertilizer								
7	Barrels, iron (returned)								
8	Cocoa	25,080	5,218					630,514	99,299
9	Cassava (bread of yuca)					1,448	23		
10	Cattle					*41,379	1,294,717		
11	Copper ore							1,122	25
12	Cocoanut meat								
13	Claret								
14	Coffee	2,801,609	184,064	66,836	3,441	34,600	2,001	9,242,132	996,302
15	Divi-divi (dye root)								
16	Fruits					698	1	858	96
17	Fish stomachs, dried								
18	Gold, old								
	Hides:								
19	Ox	985,227	139,563						
20	Deerskins	29,804	6,946						
21	Goatskins	213,307	69,420					330	38
22	Horns							3,364	183
23	Hair, cattle and horse								
24	Leather								
25	Machinery								
26	Rosin (returned)								
27	Shells (tortoise, snails)								
	Sugar:								
28	Papelon								
29	Cane								
30	Spirits								
31	Timber								
32	Tobacco			297	300			1,286	1,329
33	Trunks								
34	Wax								
35	Wood								
36	Total	4,055,512	405,457	67,133	3,741	99,427	1,301,779	9,879,782	1,097,280

*Head.

district for year ended December 31, 1899.

Germany.		Holland.		Italy.		Spain.		Total.		
Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	
Pounds.	*Dollars*	*Pounds.*	*Dollars*	*Pounds.*	*Dollars*	*Pounds.*	*Dollars*	*Pounds.*	*Dollars.*	
.....	.....	2,376	77	.....	.....	.....	.....	2,376	77	1
21,579	115	.....	.....	.....	.....	.....	.....	21,579	115	2
.....	.....	.....	.....	.....	.....	.....	.....	176	8	3
.....	.....	.....	.....	.....	.....	.....	.....	485	246	4
.....	.....	.....	.....	.....	.....	.....	.....	62,681	5,037	5
55,981	3,166	.....	.....	.....	.....	.....	.....	55,981	3,166	6
5,172	213	.....	.....	.....	.....	.....	.....	5,172	213	7
254,146	33,705	65,824	9,887	.....	.....	32,954	4,433	1,088,518	152,542	8
.....	.....	.....	.....	.....	.....	.....	.....	1,448	23	9
.....	.....	.....	.....	.....	.....	.....	.....	*41,379	1,294,717	10
10,610	217	.....	.....	2,259	59	290	9	14,281	310	11
37,481	728	.....	.....	660	16	.....	.....	38,141	744	12
.....	.....	30	3	.....	.....	.....	.....	30	3	13
4,160,160	322,196	1,067,540	45,083	58,315	6,245	951,367	56,023	18,382,559	1,615,355	14
17,820	205	110,869	800	87,100	1,332	.....	.....	215,789	2,337	15
.....	.....	126,757	1,730	.....	.....	.....	.....	128,313	1,827	16
88	8	.....	.....	.....	.....	.....	.....	88	8	17
4	39	.....	.....	.....	.....	.....	.....	4	39	18
.....	.....	16,510	2,094	.....	.....	.....	.....	1,001,737	141,657	19
.....	.....	206	20	.....	.....	.....	.....	30,010	6,966	20
.....	.....	129	12	.....	.....	.....	.....	213,766	69,470	21
24,343	793	2,595	138	13,944	1,002	2,200	42	46,446	2,158	22
714	29	.....	.....	61	5	44	4	819	38	23
.....	.....	32	2	.....	.....	4,125	1,158	4,157	1,160	24
213	40	.....	.....	.....	.....	12,100	67	12,313	107	25
1,668	138	.....	.....	.....	.....	.....	.....	1,668	138	26
5,185	156	.....	.....	460	3	.....	.....	5,645	159	27
.....	.....	2,310	89	.....	.....	.....	.....	2,310	89	28
.....	.....	2,220	35	.....	.....	.....	.....	2,220	35	29
26	2	200	5	.....	.....	.....	.....	226	7	30
132,436	606	.....	.....	.....	.....	.....	.....	132,436	606	31
96	77	.....	.....	.....	.....	.....	.....	1,679	1,706	32
239	50	.....	.....	.....	.....	.....	.....	239	50	33
308	60	.....	.....	.....	.....	.....	.....	308	60	34
523,378	2,373	.....	.....	.....	.....	.....	.....	523,378	2,373	35
5,251,647	364,916	1,397,598	59,975	162,799	8,662	1,003,080	61,736	21,916,978	3,303,546	36

VENEZUELAN STAMP LAW.

Minister Loomis sends from Caracas, June 20, 1900, translation of a new decree relating to stamps required by the Government of Venezuela to be affixed to documents of various kinds.

As many American citizens are called upon to pay the stamp taxes in Venezuela, Mr. Loomis thinks the translation of this decree will be of value and interest to a considerable number of business men in the United States.

The decree reads:

Cipriano Castro, general in chief of the armies of Venezuela and supreme chief of the Republic, decrees:

ARTICLE I. The national tax of instruction stamps will be continued according to the following tariff:

On documents or writings of any kind which deal with values, whether for circulation in the Republic or foreign countries, stamps will be affixed and canceled as follows:

Value.		Stamp.	
Bolivars.		*Bolivars.*	
25 to 50	$4.82 to $9.65	0.05	$0.0096
50 to 100	9.65 to 19.30	.10	.0193
100 to 200	19.30 to 38.60	.20	.0386
200 to 300	38.60 to 57.90	.30	.0579
300 to 400	57.90 to 77.20	.40	.0772
400 to 500	77.20 to 96.50	.50	.0965
500 to 1,000	96.50 to 193.00	1.00	.193

And from 1,000 bolivars on, a stamp of 1 bolivar for every additional thousand or fraction thereof.

§ The stamps which, according to this article, must be canceled on checks and drafts must be attached to the stubs thereof, or on the original if there is no stub.

ART. II. Navigation licenses will have stamps canceled on them as follows:

Ships of—	Stamp.	
	Bolivars.	
10 to 50 tons	0.50	$0.0965
50 to 100 tons	1.00	.193
100 to 500 tons	1.50	.289
500 to 1,000 tons	3.00	.579
1,000 to 2,000 tons	5.00	.965
2,000 tons and over	10.00	1.93

ART. III. A stamp of 2 bolivars (38.6 cents) will be used for the health bill of sailing vessels and one of 10 bolivars ($1.93) for that of steam vessels.

ART. IV. On importation and exportation manifests, stamps of 2 bolivars (38.6 cents) will be used for each 1,000 bolivars ($193) of said manifests, and on coast trade manifests stamps of 1 bolivar (19.3 cents) will be used for each 1,000 bolivars.

ART. V. On bills of lading for coast trade, stamps of 2 bolivars (38.6 cents) will be used, and on those for export stamps of 5 bolivars (96.5 cents).

ART. VI. Stamps of 1 bolivar (19.3 cents) will be used—

(1) On all petitions or demands for justice, sent in writing to any public employee, at the rate of 1 bolivar (19.3 cents) for each party interested. If more than twenty persons are interested, only this number need to provide stamps.

(2) On all authorized copies.

(3) On all second-class-passage tickets sold by agents of steam or sailing vessels.

(4) On manifests for the importation of cartridges, pistols, revolvers, and all firearms, at the rate of 1 bolivar (19.3 cents) for each piece, and 1 bolivar for every kilogram of cartridges, with the exception of such arms and cartridges as are to be used for hunting purposes exclusively.

ART. VII. Stamps of 2 bolivars (38.6 cents) will be used—

(1) On certificates of exemption from military service on account of sickness or any other cause.

(2) On all certificates of public officials of whatever rank.

(3) On all first-class tickets sold by steam or sailing vessel agencies.

(4) On documents granting special powers, whether given by one or more persons.

(5) On the substitutions and revocations of such powers.

(6) On degrees of bachelor of arts, preceptor, veterinary surgeon, or those of any other liberal or mechanical profession.

ART. VIII. Stamps of 4 bolivars (77.2 cents) will be used—

(1) On documents granting full powers, whether given by one or more persons.

(2) On substitutions or withdrawals of same.

(3) On open wills and on documents revoking same.

(4) On licenses for carrying arms.

ART. IX. Stamps of 10 bolivars ($1.93) will be used—

(1) On contracts, transactions, and other acts in which civil or commercial associations are reformed, extended, or dissolved.

(2) On contracts, transactions, and other acts in which rights or services that can not be expressed in figures, such as real or personal services, are constituted, transferred, modified, or renounced.

(3) On the granting of rights to guardians and tutors; on declarations of emancipation, prohibitions, disqualifications; on documents legitimizing and recognizing illegitimate children, adoptions; and on acts revoking, modifying, or annulling the above.

(4) On all final sentences in civil and mercantile matters, with the exception of what is set forth in Article XVII.

(5) On the title pages of wills and closed codicils.

(6) On personal bonds for values or services that can not be expressed in figures, as well as on cancellations of same.

(7) On the recordings of suits and sentences which, according to the civil code, must be registered, as well as on the drawing up of legal mortgages.

(8) On degrees of doctor or professor of any science, and on those of lawyer, solicitor, engineer, surveyor, dentist, and man midwife.

(9) On permits for public amusements.

(10) On letters of nationality.

(11) On literary or artistic copyrights or privileges.

(12) On permits of private vehicles.

ART. X. Stamps of 20 bolivars ($3.86) will be used—

(1) On writings concerning values given as dowries or matrimonial cessions which can not be given in figures.

(2) On the final receipts or discharges of public accounts.

(3) On privileges granted to new industries.

(4) On patents of navigation.

(5) On trade-marks or commercial patents.

(6) On invention patents.

ART. XI. Stamps to the value of 40 bolivars ($7.72) will be used—

(1) On deeds of mines and of concessions of waste or municipal lands.

(2) On cancellations of mortgages of every description and other similar obligations, on divisions of property, liquidations of same, donations between living persons, revocations of same and declarations of reduction, and all other cases when one-fourth of 1 per cent is paid for registry charges when it is not possible to obtain the sum total of the values which the acts mentioned above represent.

(3) In exemptions from importation duties such as are not included in Article III.

ART. XII. The tax will be paid in the proportion given in Article I of this decree—

(1) On contracts, transactions, and other acts which deal with pensions, such as leases, life income, annuities, partial alienations, the tax to be paid will be that corresponding to the sum of the pensions or incomes to be paid during the first five years.

(2) When obligations of this kind are transferred to other persons or to other properties or are modified, decided upon, or renounced.

(3) On cancellations of promissory notes, guaranties, bonds, mortgages of all kinds, and other obligations; on divisions of property, acts of adjudging, liquidations of property, revocations and declarations of reduction of donations between living persons; and in all cases where one-fourth of 1 per cent is paid for registry charges, the stamp tax will be paid on the amount expressed in or referred to by such documents.

§ When a document must needs be recorded in different registry offices, owing to the situation of the properties, stamps will be used only in proportion to the value of the property that occasions the recording.

(4) On the final receipts and discharges of private accounts.

(5) On the titles of civil, military, and ecclesiastical employees, and on documents giving military rank in the army and navy, stamps will be used corresponding to the amount of salary for one year.

(6) On documents of marriage portions and matrimonial cessions, stamps will be used in proportion to the amount received by the married parties.

(7) On stocks, bonds, or policies of corporations or other such companies, stamps will be used of the value corresponding to the valve of such stocks, etc.

(8) On industrial patents, the stamps to be used should correspond to the amount of the taxes on such patents during one year.

ART. XIII. On papers granting exemption from importation duties given by the Federal Executive, stamps should be used by the parties concerned on the respective manifests as follows: One hundred bolivars ($19.30) when the exemption is granted on machinery, utensils, or articles for mines; 10 bolivars ($1.93) when on machinery, utensils, or other articles for industrial undertakings of other kinds; and 50 bolivars ($9.65) on any other exemptions.

ART. XIV. On donations to relatives, 3 per cent of the total amount will be used in stamps; and on donations to persons not related to the donor, 20 per cent of such amount.

§ When the donor reserves the right of enjoying and using the donation during his lifetime, the stamping of the document will be effected after his death; but if the reservation be partial or limits in any way the enjoyment of the donation by the recipient thereof, this will be done at the time of the donation, deducting the value

of the reservation, upon which the corresponding stamp tax will be levied upon the death of the donor.

ART. XV. The stamp tax formerly levied on cigarettes and tobacco for same will be collected in the custom-houses on imported cigarettes and tobacco for same at the rate of 2 bolivars (38.6 cents) per kilogram (2.2046 pounds). The use of stamps on the cigarette packages is hereby eliminated, and the tax created by paragraphs 15 and 16 of the law of June 3, 1897, is revoked.

The collection of taxes on cigarettes and tobacco for same which may be imported into the country will be made in the same way as that of custom-house duties, and the product will be sent semimonthly to the general treasury of public instruction.

The collectors of the custom-houses will open a special account for this branch of collection and will hand in a report of same to the Minister of Public Instruction on the first of each month.

ART. XVI. On contracts made by the Government, the stamp tax created by the registry law now in force will be paid.

ART. XVII. The following are exempt from stamp taxes:

Receipts for payments in the public service and those granted by public officials for sums belonging to the national treasury.

Final sentences pronounced in civil and mercantile cases of minor importance.

ART. XVIII. Merchants doing business in whatever branch of merchandise or natural products will pay a stamp tax of 10 per cent of the license they pay annually for their cash sales.

ART. XIX. This decree will go into force on the 1st of next July, from which date all other decrees dealing with the subject are to be considered as annulled.

ART. XX. The Minister of Public Instruction is charged with the execution of this decree.

Given, signed by me, sealed with the seal of the National Executive, and ratified by the Minister of Public Instruction in the Federal Palace at Caracas, June 13, 1900; eighty-ninth year of independence and forty-second of federation.

CIPRIANO CASTRO.

Ratified.

MANUEL CLEMENTE URBANEJA,
Minister of Public Instruction.

DIAMONDS IN BRITISH GUIANA.

It has been known for many years that diamonds exist in this colony. In 1890, 749 stones weighing in the aggregate 514.53 grains were discovered.

The colonial commissioner of mines, in his official report in 1893, alluded to the finding of diamonds in the different gold placers and expressed a belief that dry mines would ultimately be found. Up to that time, the largest stone found weighed 8 grains.

Last March, 282 stones were found 250 miles up the Mazaruni River. They were sent to London, where they were examined and the lot valued at $12 per carat.

On the 6th instant, 400 small stones were brought down from the same locality. They were washed out by nine men in eighteen days by very crude methods. The stones are octahedron, varying in

weight from a decimal of a grain to a carat and a half in the crude state.

London dealers consider the stones superior to South African diamonds and value them 25 to 50 per cent higher than those found in that region, and they pronounce them equal in quality to Brazilian stones.

The distance from Bartica, at the confluence of the Essequibo and the Mazaruni rivers, to the locality is 250 miles. The diggings are about 5 miles from the river, over a narrow trail through a tropical jungle. Provisions and material are packed on men's backs to the vicinity.

It requires eight days to make the journey up. The return voyage, which is both exciting and dangerous, is accomplished in two days and a half.

A concession of 2,000 acres of land in the locality has been granted to Messrs. Conrad and Gilkes, of this city, for the purpose of mining precious stones. Other local parties have recently contributed money to send an experienced diamond miner with twelve men to the district, who will endeavor to locate the matrix from which it is thought the stones already discovered came.

GEO. H. MOULTON,
Consul.

DEMERARA, *July 20, 1900.*

PENNY SAVINGS BANK IN FALKLAND ISLANDS.

The penny savings bank in the Falkland Islands has accomplished more than its originators expected. It was started by the dean of the Episcopal Church with the design of teaching the children habits of thrift. On every Monday morning, the children bring their accumulations of pennies, sixpences, and shillings to the government school for deposit. The funds are received by the principal and the amount and date recorded in the deposit book belonging to each child. When the deposits amount to £1, interest is paid. The private secretary of the manager of the bank is at hand to enter up the amounts in the ledger. The whole thing does not take more than ten minutes.

As to results, the following items are taken from the last year's balance sheets: In 1899, 17 new accounts were opened up and 11 closed, leaving 94 depositors, among whom the balance on hand—£640 11s. 11d. ($3,116.46)—was distributed. This gives an average of about £6 16s. 4d. ($33.17) to each depositor. During the year, £244 18s. ($1,191.80) were deposited in 750 separate deposits, and £108 9s. ($527.77) were withdrawn in 39 separate withdrawals. On

the deposits loaned to the Government Savings Bank, there was paid £14 6s. 3d. ($69.65).

When the parents realized the value of the bank, they began to deposit in the name of their children, and at last the government took hold of the matter and organized a regular savings bank. The number of depositors is steadily increasing.

J. E. ROWEN,

PORT STANLEY, *May 14, 1900.* *Consul.*

ARGENTINE NEUTRALITY PROCEDURE.

The following has been received from Mr. François S. Jones, secretary of legation at Buenos Ayres:

There are no Argentine neutrality laws. The question of the advisability on the part of the Argentine Congress of enacting such laws has been agitated, but up to the present time no legislation has been passed on the subject.

An investigation of the diplomatic relations of this country since 1870 shows but few cases involving the question of neutrality or a violation thereof; but the few that I have been able to discover from my researches in the Ministry of Foreign Affairs, and which I believe are the only ones that have occurred, I beg to herewith submit.

In the early part of February, 1865, Robert Stewart, an Englishman, shipped from Liverpool 42 boxes containing 840 rifles and other articles of war consigned to George Stewart in Buenos Ayres. Upon the goods arriving, the consignee went to Paraguay to negotiate their sale, instructing William Thompson, his agent, to ship them to that country after having satisfied all necessary customs regulations. In consequence, they were shipped April 8 from Buenos Ayres for Corrientes, Argentine Republic, to one Miguel Rosas, where they were to be transshipped for Paraguay.

Meanwhile, war had broken out April 14 between the Argentine Republic and Paraguay, and the steamship *Esmeralda*, which carried the goods, was stopped by order of the governor of Corrientes and the goods in question discharged at Bella Vista, Argentine Republic, and placed at the disposition of the Argentine Government. In the name and on behalf of Robert Stewart, the consignor, Thompson subsequently presented a claim for £6,258, the value of the goods, and £1,500 indemnity for detaining them eighteen months.

The case was first brought before the federal court in Buenos Ayres, which decided that the confiscation of the goods had been unlawful, and that they should be returned to the owner or a just equivalent of their value paid him or his representative.

The Government appealed from this decision, and on March 2, 1867, the supreme court of the Argentine Republic rendered a decision embodying the following rules:

(1) A state of war does not alter the commercial relations of neutrals among themselves, nor with any of the belligerent parties.

(2) This rule is limited by the principle which prohibits neutrals from intervening in war.

(3) Belligerents have the right to confiscate contraband of war under neutral flag, whether property of the enemy or not.

(4) Arms and munitions of war shipped by neutrals to one of the belligerents can be classed by the enemy as contraband of war.

(5) To effect that, it is necessary for neutrals to be cognizant of a declaration of war and that the articles be destined for a port of the enemy.

(6) A belligerent can appropriate neutral's goods destined for enemy's ports.

(7) If they consist of innocent articles or of that kind which is termed accidental contraband, the owner should be paid the value thereof which they represent in the place of their destination.

(8) If they consist of arms and munitions of war, the rules of expropriation govern by reason of public utility, and the value which the articles have in the place of their seizure should be paid for them.

At the outbreak of the war between Chile, Peru, and Bolivia in 1879, the minister of Chile in Buenos Ayres addressed, April 8, a note to the Argentine Government announcing that his Government had declared war against Peru and Bolivia, and stating that, whatever the emergencies of the war might be, Chile would scrupulously respect the rights of the Argentine Republic. As an act of reciprocity, and also as an obligation imposed by the law of nations, the Chilean minister asked that the Argentine authorities should observe the strictest neutrality in the course of the war, and requested a declaration of neutrality from the Argentine Government to that effect. At the same time, the Chilean minister called attention to the fact that the Bolivian Government was buying mules and transport wagons in the Argentine Republic close to the frontier of the latter and requested that due vigilance therefore should be exercised to prevent a violation of neutrality.*

To this, the Minister of Foreign Relations of the Argentine Republic replied that "the Argentine Government, though not making the declaration asked by his excellency, which is not a duty exacted by international practice, will know how to observe, in the grave events that are taking place on the Pacific coast and which

* See Memoria del Ministerio de Relaciones Exteriores, 1879, pp. 309, 310.

endanger the welfare and the future of three sister Republics, the line of conduct imposed by loyalty to agreements followed always by Argentine public faith, which has never been put in doubt nor will be questioned."*

The position taken by the Argentine Government was tantamount to a refusal to openly accede to the rather positive and pressing request of the Chilean Government, though, notwithstanding this reluctance, it can not be charged with having shown any partiality in the subsequent development of the war; and, indeed, in some of the later notes from the Argentine Government to the minister of Chile, distinct references are made on the part of the Argentine Republic of its observances of the rules of neutrality.

During the progress of this war, known as the "Guerra del Pacífico," which lasted four years, it is of interest to note the views entertained on the part of Chile and Bolivia of the duties of the Argentine Republic with respect to themselves. While the former demanded an absolute prohibition of the traffic in arms, the latter protested against a rigorous enforcement of such prohibition, on the ground that it would prove not an impartial attitude on the part of the Argentine Republic, but a discrimination against Bolivia in favor of Chile. Bolivia supported her argument by basing it upon her treaty of 1868, from which she deduced the right to continue her transit commerce with the Argentine Republic on the same footing during the war as before. She likewise pointed out that the geographical conditions of Chile and of her territory were so entirely dissimilar that commercial restrictions imposed by Argentina would severely damage her interests without affecting those of Chile, as that Republic, having a vast seaboard, could easily import all its necessities of war; while Bolivia, having its small extent of Pacific seacoast blockaded, had no means of continuing its commerce except through the Argentine Republic and Uruguay.

The diplomatic correspondence was conducted on the part of Bolivia by Dr. Antonio Quijarro, the Bolivian minister, and on the part of the Argentine Republic chiefly by Dr. Bernardo de Irigoyen, the Argentine Minister of Foreign Relations. The former assumed the broadest possible construction of the rights of private persons in neutral territory to carry on commerce with either party at war, and supported the view that neutrality is not a change of condition, and that the relations of neutrals between themselves and with belligerents remain the same in time of war as in time of peace. It followed therefrom that, if a nation in time of peace allowed its nationals to engage in the commerce of arms, munitions, wood for strategic construction, and other material serviceable for

* See Memoria del Ministerio de Relaciones Exteriores, 1879, p. 310.

warlike purposes, a belligerent had not the right to object to a continuance of that traffic in time of war by the nationals of that neutral state; that, on the other hand, if the traffic of arms and other warlike material should have been forbidden by a state in time of peace, to permit this traffic in time of war the belligerent to whose detriment such innovation would enure would have the right to consider such act as an intervention in the war.

His opinion summarized was therefore that the status of neutrality imparts no change of condition; that all that was permitted before the war continues permissible in time of war, and all that was prohibited prior to a state of hostility remains prohibited during that state.

Dr. Bernardo de Irigoyen, Minister of Foreign Relations of the Argentine Republic, made the following reply: That while it was generally conceded that the traffic in arms and war material by private persons was admissible as a commercial transaction, without the intent to aid one or the other belligerent, and subject to the risk of seizure without redress, yet it was recognized that, when the shipment of arms made by agents of belligerents was made on a large scale so as to convert them into important aids to the war, neutral governments should use due diligence to prevent such traffic with one of the belligerents, in order not to be required to sanction similar operations that might be conducted with the other belligerent, and thus by such toleration convert its territory into a center of expeditions in conflict with its character of neutral.

The public documents of the Ministry of Foreign Affairs show several cases during this war of Chile's protests against alleged shipments of arms from the Argentine Republic to Bolivia, which, being unimportant in character, never resulted in anything more than an exchange of notes.

There are two questions which, though not involving the subject of neutrality, may not prove entirely irrelevant to be cited here, which are the cases of the *Pilcomayo* and the *Artigas*.

The *Pilcomayo* was a Chilean gunboat lying in one of the docks of the port of Buenos Ayres. It was an old vessel, and its commander was, by order of his Government, engaged in dismantling the armament, preparatory to shipping a part of its marines by the overland route to Chile to be incorporated in the Chilean army, and then conducting the vessel back to Chile to be taken out of service.

On March 31, 1891, a mutiny broke out on board, in which three of the crew were killed and eleven wounded. At the instance of the commander, twelve of the mutineers were taken into custody by the prefect of the port, and the Argentine Government was requested

by the Chilean minister to hold them under arrest until the vessel was ready to start for Chile, whither they were to be taken for trial.

Upon petition, writs of habeas corpus were issued in their behalf, and the federal judge rendered the following opinion:

That though there was a fiction of public international law that ships of war are a portion of the territory of the state to which they belong, and that, in consequence, only the laws of that state can govern them, yet, on the other hand, in order to render these laws effective, they must possess the necessary elements of power, and that this fiction could not extend as far as to bestow authority to maintain and grant the right of jurisdiction over prisoners in foreign territory under its flag. It followed, therefore, that from the fact that the Chilean minister had caused these men to be taken from the vessel and placed in the custody of the Argentine federal authorities, he had thereby renounced, or rather lost, the right to remove them from the country or to try them, as he could have done had they been retained on board the vessel or held under arrest in the Chilean legation.

That within the Argentine Republic, no person could be detained or imprisoned, whatever might be his condition or the crimes of which he stood charged, save by order of a competent court and previous trial in legal form, from which rules the persons in question could not be exempted by reason of having belonged to a foreign war ship, or of having received the consent of the Executive of the Argentine Republic to their detention.

That the gunboat *Pilcomayo* having lost its character of ship of war by disarmament, as it appears from the communication of the minister of Chile, it lacked the necessary elements to render its laws effective, and that the detention of these persons ceases to be a mometary one which could be conceded by the authorities of the nation by courtesy simply with the object of effecting their extradition that they might be judged according to Chilean law, while not admitting that there can exist within Argentine territory prisoners held indefinitely without there being tribunals before which they can be tried, which would be contrary to the constitution of the Argentine Republic and the spirit of the said laws of extradition.

That no request for extradition in due and proper form had been preferred, and that also no treaty with Chile made it obligatory to deliver up persons in cases of this kind.*

The case was subsequently appealed to the supreme court of the Argentine Republic, which sustained the opinion of the federal judge with the following ruling:

(1) A mutiny breaking out for political reasons among the crew of a war vessel anchored in territorial waters of the Republic is to be considered as a political offense, and does not lose that character by infractions of another kind connected therewith, committed as a means to reach that end.

(2) Where mutineers are brought on shore and are delivered over as prisoners to the authorities of the country, in consequence of inability to retain them on board, their return to the representative of their government after they have petitioned for a writ of habeas corpus can not be granted without transgressing the law which renders those guilty of political offenses inviolable; it infringes also the principles of public international law, which does not allow the delivery of prisoners of war, whether public or insurrectionary, who have in whatever way it may be set foot on the soil of a neutral state.

In the case of acts of hostility or of civil war committed by insurgents of a

* See Memoria del Ministerio de Relaciones Exteriores, 1891, pp. 171, 172.

foreign state in the territorial waters of a neutral state, it is a rule of international law to deliver over to the government of that state only the vessels or things taken from them; not the persons.

In the Republic, no person can be held in prison without written order from competent authority, not even for acts which have not been classified beforehand as offenses.

CRANE REGULATIONS AT NEWCASTLE.

Consul Goding sends from Newcastle, June 3, 1900, copy of the crane regulations of that port. As trouble frequently arises between American masters and the New South Wales railway authorities over these regulations, says Mr. Goding, due largely to a lack of knowledge of details, their publication may be of advantage.

REGULATIONS FOR THE WORKING OF CRANES AND WHARF AT THE PORT OF NEWCASTLE, NEW SOUTH WALES.

Every person or company using the cranes or wharves will do so subject to the following regulations and conditions:

(1) The berths at Bullock Island, under the cranes, shall be reserved for vessels requiring the use of these appliances either to load or unload cargoes; vessels loading coal or coke to have priority. The master of every vessel occupying a crane berth for the purpose of loading or unloading must observe these regulations, or in default thereof pay any and all sums of money as by reason of such default he may become liable to pay to the railway commissioners, as hereinafter provided.

(2) Vessels requiring berths at cranes for the purpose of loading or unloading cargoes shall obtain same in the order of their arrival in port (provided they are considered suitable by the berthing master, and the necessary loading orders have been lodged, and their loading in such order will not in any way interfere with the loading of vessels then under and in turn before them, except as hereinafter referred to), such arrival to be entered by the master of the said vessel in a book kept at the berthing master's office, specifying name of vessel, tonnage, length of vessel, draft of water when loaded, and cargo; also, number of tons and description of ballast, whether coal stiffening on board on arrival. In the case of a steamer, how many tons of bunker coal required, exclusive of cargo, and the master of such vessel shall be required to give a written guaranty, before being allowed to occupy a berth under a hydraulic crane, that he will receive the quantities specified in clause 5. Masters who refuse to give such guaranties may, if there be other vessels capable of taking in the prescribed quantity and prepared to give the necessary guaranty, be require to take the first berth under a steam crane. The entries so made will be held to be the order in which the vessels shall be berthed, except as aforesaid, unless the order of arrival is disputed, in which case an appeal may be made to the harbor master, whose decision shall be final. This regulation is not to apply to any of Her Majesty's ships, or to ships requiring coal for any of Her Majesty's ships at the Australian station, which may load at any time without waiting their turn; nor to steamers (hereafter provided for).

(3) Vessels requiring or occupying a crane berth, but not the use of crane, may be berthed conditionally—that is, provided the crane is not required for loading or unloading other vessels; but should the crane be required for either of the purposes named during the time the berth is so conditionally occupied, the vessel

must be removed or pay the charge of 20s. ($4.86) per hour for each and every hour and a proportionate amount for any part of an hour she may remain in occupation of the berth. Vessels occupying berths under such conditions will be required to load at the rate of not less than 80 tons per day of twelve hours—that is, between 6 a. m. and 6 p. m., and a like quantity between 6 p. m. and 6 a. m., or in default to be removed from the berth.

(4) Should any vessel not be in readiness to move to the berth when her turn arrives, then the vessel next on the list shall take the turn, and the vessel so losing her turn shall take the next succeeding turn on the list, if ready. Vessels of not more than 14 feet load draft will be required to move into a berth at the steam cranes, should such berth first become vacant.

(5) Vessels occupying the crane berths to load with coal or coke will be required to receive the coal or coke at the following average rates, namely:

At—	Per day in each case.	
	Steamers.	Sailing vessels.
	Tons.	*Tons.*
Steam cranes	500	400
Hydraulic cranes	750	500

that is, between 6 a. m. and 6 p. m., or 6 p. m. and 6 a. m., less meal hours, a working day or night of ten hours, and a proportionate quantity in each and every case for shorter periods; but if vessels are capable of receiving a greater quantity, the contractor shall be bound to ship and the ship to receive such greater quantity; the time of loading to reckon as commencing one hour after the ship is berthed. A charge of 20s. per hour and a proportionate amount for any part of an hour shall be made against the master of the ship for each and every hour or part of an hour such crane berth is delayed: *Provided, however*, That no charge shall be made as against the master for any delay caused by any defect in shipping appliances, or the neglect of the contractor to ship the coal, or any delay caused by the coal not being supplied. The contractor for shipping shall work at night or at any time during the day when required by the berthing master; and any delay caused by such contractor, or by the master of any ship refusing to take coal at night, or to allow at all times while at the crane berth free access to his ship of the men employed by the contractor to ship the coal, shall be charged for; and the contractor, if the fault be his, or the master of the vessel in like case, shall pay to the railway commissioners a charge at the rate of 20s. per hour and a proportionate amount for any part of an hour for each and every hour or part of an hour that the crane is delayed. The railway commissioners reserve to themselves the right—in lieu of making charges for delay—to direct the removal of any ship from any crane berth should she not, from whatever cause arising, be receiving her coal in the stipulated quantities, to give place to the next vessel in turn, the vessel so removed to have the next succeeding turn, if ready.

(6) For the purpose of carrying out the regulations laid down in clause 5, as regards the quantity of coal to be shipped, a board of appeal, consisting of the harbor master, or in his absence his deputy, the subcollector of customs, and the resident engineer for harbors and rivers, shall decide upon the merits of any case in dispute, and their decision shall be final.

(7) Any company or person supplying coal for any vessel occupying a crane

berth, and which such company or person has agreed with the master, owner, or charterer of such vessel to load, shall pay to the railway commissioners a charge of 20s. per hour for each and every hour, and a proportionate amount for any part of an hour such vessel is delayed at any crane berth, if such delay be caused by the neglect or inability of the company or person agreeing to load or supply coal to furnish the same at the rate which such vessel under clause 5 of these regulations is required to receive her coal: *Provided, however*, That the company or person supplying or agreeing to supply as aforesaid shall not be held liable should the delay be caused by the neglect or inability of the railway commissioners to haul the coal when ready along the railway line from the colliery to the crane berth.

(8) Every vessel occupying a berth at a crane shall be removed as soon as her loading is completed, or as soon thereafter as the height of water in the harbor will permit; but should any vessel remain on the berth after having completed her loading from any other cause except stress of weather or because of no proper anchorage or moorings being available, the master of such vessel shall forfeit and pay to the railway commissioners at the rate of 20s. per hour and a proportionate amount for any part of an hour and every hour the vessel may so remain in occupation of the crane berth.

(9) No steamer or sailing vessel shall be allowed to discharge ballast while occupying a steam or hydraulic crane berth.

(10) No goods or ballast discharged from or to be shipped into any vessel shall be placed on the wharf nearer than 5 feet from the edge next the harbor, under a penalty of £5 ($24.33), to be paid by the master of such vessel to the railway commissioners; and all goods placed upon the wharves at Bullock Island, Newcastle, shall be removed therefrom within forty-eight hours by the owner, agent, or consignee; and should such goods not be removed by that time, then the berthing master shall have power to cause the same to be removed at the cost of such owner, agent, or consignee, or to charge wharfage rates thereon of 2d. per packet, or 1s. (24 cents) per ton per day, at the option of the berthing master.

(11) Any vessel requiring the use of the cranes for the purpose of loading or unloading full cargoes other than coal and coke may be berthed conditionally as provided for in clause 3, but shall pay for the use of crane £12 ($58.40) per day—that is, from 6 a. m. to 6 a. m., meal hours included, or a day of twenty-four hours—lifts of 5 tons or over to be paid for per merchandise rate book in addition.

(12) Vessels occupying other than crane berths at the wharves for discharging cargo shall do so at the rate of not less than 60 tons, and if ballast not less than 80 tons between 6 a. m. and 6 p. m. of each day; or in default may be removed from the berth.

(13) In all cases where there are vacant crane berths, and no sailing vessels ready to occupy same, the berthing master may fill the vacant berths with steam vessels.

(14) Any vessel requiring wharfage accommodation other than at a crane for loading or unloading cargoes of timber shall be allowed to occupy such berth as may be allotted for such purpose, and such vessels shall be required to load or unload not less than 40 tons per day. And for each and every day of twenty-four hours such vessel shall occupy the berth beyond the time necessary for loading or unloading her cargo at the rate stated shall forfeit and pay to the railway commissioners the following sums, namely:

Vessels not exceeding 100 tons	£3=$14.60
Vessels not exceeding 200 tons	4= 19.47
Vessels not exceeding 300 tons	5= 24.33
Vessels exceeding 300 tons	6= 29.20

Provisos—regulations for steam vessels.

(15) The berthing master shall set apart four cranes for the use of steamers, which shall be berthed thereat in the order of their arrival in port, provided that there is sufficient space to berth said steamers without detriment to the loading at the adjoining cranes of a vessel entitled to go thereunder, and that their cargoes will not interfere with the loading of vessels then under or in turn; and also that the master or agent is prepared to find coal sufficient to work continuously until finished, if required by the berthing master to do so. Steamers having mails and passengers calling for coal for their own consumption only to enable them to complete their passage to take precedence, and in the event of their being unable to berth at the steamers' cranes to be allowed to take such coal at any crane berth which at the time of their arrival may be actually vacant; and should the crane berths allotted to steamers be occupied, the vessel last berthed must, if possible, be removed to make room for the passenger steamer—the vessel so removed taking the next turn. Steamers not having mails or passengers calling for bunker coal only take preference after sailing ships requiring a full cargo.

(16) In the event of any of the berths set apart for steam vessels not being required for immediate use, any sailing vessels may be placed in such berths, but such sailing vessels shall not occupy such berth for a longer period than twelve working hours, if the same shall be required for steam vessels.

(17) Vessels requiring to work during recognized meal hours may do so by intimating such desire or writing to the berthing master one full hour prior to each meal hour.

(18) The words "railway commissioners" in these regulations shall be taken to mean the railway commissioners of New South Wales duly incorporated under or by the government railways act of 1888, and the word "contractor" shall be taken to mean the person or persons who for the time being may hold the contract with the railway commissioners for the working of the cranes or wharves.

Night turns.

(19) Can be secured for vessels or steamers expected to arrive between 6 p. m. and 6 a. m. by the agent paying a deposit of £10 to secure a crane (providing there is one vacant), this deposit to be forfeited in the event of the vessel's nonarrival. If vessels arrive within one hour of the time arranged, no forfeiture is incurred; but vessel berthing more than one hour after the time from which the crane has been set apart for same will pay £1 ($4.8665) per hour and a proportionate sum for any part of an hour for the time such crane has been idle.

(20) Any order which may be given for the loading of a vessel on any Sunday night may be canceled, provided notice is given to the berthing master prior to 6 p. m. on the previous day (Saturday), without charge; but if advice of cancellation be not given to the berthing master until after 6 p. m. on Saturday, a charge of 30s. ($7.30) will be made.

Booking.

(21) For the convenience of vessels proceeding direct from sea to the hydraulic cranes (berths having been previously allotted by the berthing master), masters may enter ships at the assistant berthing master's branch office at Bullock Island, instead of at the chief office in Newcastle.

(22) Companies or persons wishing to have their wagons lowered into the holds of vessels will, before the coal is released, be required to lodge a written order to that effect, countersigned by the master of the vessel that he is agreeable to such a course.

Shipment of cattle at Bullock Island.

All applications for a stock-loading berth must be made to the berthing master in writing, stating that the vessel is ready to load stock, and that such stock is within a radius of 14 miles of Newcastle, or in transit by rail, at the time of applying for the berth. Further, that the loaders agree to load at the rate of fifty head of cattle or three hundred sheep or twenty-five horses per hour, time to be reckoned from one hour after berthing to the time of unberthing. In default, 20s. per hour to be paid for every hour or part of an hour occupied beyond such time, or the berthing master may remove the vessel to make way for any other vessel requiring to ship stock whose agent will undertake to comply with the aforesaid conditions; the vessel removed to have the next succeeding turn, if the agent can then comply with the conditions.

Approved by the governor in council on the 29th day of November, 1898.

COMMERCIAL METHODS IN AUSTRALIA.

I wish to call attention to the rules governing trade between Great Britain and these colonies. If American shippers desire to build up an export business with Australia, they must remember that the following customs prevail:

(1) Most Australian business houses have their own branches in London, doing all their British and foreign buying; or they have an agent or buy direct from the manufacturers.

(2) Terms of payment are arranged in several ways. Where branch houses are established, the suppliers deliver their orders at the ship's side, handing the buyer the ship's receipt with their invoice. The accounts are then payable in thirty days less a discount of 2½ per cent, or in seven days less 3 per cent. This custom also applies to agents' transactions, where, of course, the agent receives a commission for his services. Where there is neither a branch office nor an agent, a letter of credit is as a rule established with a banker, and the suppliers' draft against documents at ninety to one hundred and twenty days after sight is paid, the charge for exchange being paid by the buyer here.

(3) Another system is for the merchant here to instruct his banker to receive documents for any shipments, naming the firm supplying, and to pay cash for the face value, collecting the money from the merchant here on receipt of documents by mail. This is done only when buyers and suppliers are well known to, and on the best terms with, each other.

(4) Another custom prevails by which an indent is forwarded direct to the supplier or manufacturer, with instructions to present documents at a bank or office and obtain from 75 to 80 per cent cash, and to draw at sixty to one hundred and twenty days for the

balance, including prepaid freight. This, as a rule, applies to transactions between people not so well known to each other.

(5) In some instances, merchants will remit a bank draft (for the estimated value of an indent) direct to the supplier, with the object of getting extra discounts; but this is done only when the merchant has plenty of spare cash and the supplier is well known and has the reputation of being absolutely safe.

(6) One other method is employed in first transactions only. Either a bank reference, a letter of credit, or a draft for the full value of the purchase is demanded as a mark of good faith, pending proof of the position of the buyer.

There are times when special arrangements are desired for special countries; but as a rule the above covers all wants, and a London or New York draft on any bank of good repute is considered as good as gold.

I have gone into detail in this matter because I am sure that unless our exporters study the methods employed by British merchants, they will never build up a great export business here. I firmly believe that our export business depends upon a thorough knowledge of the principles stated above.

F. W. GODING,
Consul.

NEWCASTLE, *June 18, 1900.*

SHOWROOM IN SYDNEY, AUSTRALIA.

In CONSULAR REPORTS No. 234, vol. 62, our consul at Chemnitz, Germany, under date of December 7, 1899, reports that the manufacturers of the Grand Duchy of Weimar, with the Grand Duke at their head, have taken up the question of sample rooms in foreign countries and are about to establish one in Sydney, New South Wales.

The consul says:

> The exporters have found by close study that the principal wants of Australia are all kinds of machines, lamps, brushes, gloves, shoes, glassware (including optical goods), photographic supplies, musical instruments of all kinds, paints and oils, candles, agricultural machines and instruments, furniture of all kinds, and beers.

He adds: "This is an opportunity that American manufacturers should not neglect." I would inform the readers of the CONSULAR REPORTS that the articles referred to are just the ones that American manufacturers are not neglecting.

During the year 1898, New South Wales imported of the first item mentioned in the report—"all kinds of machinery"—as follows: Of agricultural machinery, from Germany, £142 ($691) worth; from the United Kingdom, £8,500 ($41,365) worth; and from the United

States, £27,000 ($131,395) worth. Of "various machinery," including electric, steam, and other: From Germany, £9,500 ($46,231) worth; United Kingdom, £191,800 ($933,395); and United States, £165,000 ($802,972). Of boots and shoes: Germany, £16,000 ($77,864) worth; United States, £71,000 ($345,521); and United Kingdom, £169,000 ($822,438) worth.

Germany's trade with Australia, and especially with New South Wales, has certainly increased greatly since 1894, and in some products enormously.

The importations from Germany into New South Wales, for the five years 1894–1898, inclusive, were as follows:

Year.	Value.	
1894	£345,364	$1,680,713
1895	425,697	2,068,262
1896	690,843	3,361,907
1897	900,464	4,382,108
1898	771,620	3,755,088

Thus, more than doubling during the period under consideration. Of manufactured products, eliminating wheat and flour, there were imported for the same time from the United States for the years mentioned:

Year.	Value.	
1894	£542,427	$2,639,720
1895	624,268	3,038,000
1896	1,019,982	4,983,741
1897	1,356,328	6,620,570
1898	1,546,607	7,546,652

The ten classes of articles in which Germany has increased her markets in New South Wales most rapidly during the five years are apparel and drapery, arms and ammunition; books, paper, and stationery; cement, drugs and apothecaries' ware, hollow ware, iron and iron manufactures, musical instruments, sugar, and telegraphic materials.

Her advantages in freights give her the market in cement, and her subsidies give her a sugar market; but there is no reason that occurs to me why we should not have a better share of the trade in the other items, save that of hollow ware.

The ten items in which we have most rapidly grown in the same time are bicycles, carriages and materials, drugs and apothecaries' ware, iron and steel, machinery; paper, books, and stationery; sewing machines, timber; tobacco, cigars, etc.; and watches and clocks. We have done well in furniture and upholstery, but we should do much better, for furniture is too high in this market. We have done

well in silver-plated ware; but in hardware, in which we should excel, we have not even held our own.

There is a phase in Australian commercial transactions the facts of which are hard to determine. This relates to indirect trade. It is not easy to get behind the collector's books. Owing partially to our geographical situation and partially to the distribution of our industries over the continent, and also somewhat to our weakness in ocean carrying, most Australian products used by our people are purchased indirectly and do not appear on the books as trade between the United States and Australia, while no small amount of American goods find the Australian markets by the same circuitous method.

Most Australian wools used in the United States are marked on the books here as exports, not to the United States, but to the United Kingdom, where they are marked "imports from New South Wales;" and again "exports from United Kingdom" and "imports into United States from United Kingdom." Many American goods, too, owing to cheaper freights via London or Amsterdam, come to Australia indirectly, and these do not show on the books of this country as imports from the United States. This indirect trade between the United States and New South Wales, which swells the figures for England and Germany, must annually amount to hundreds of thousands of dollars.

Germany, too, is giving her commercial classes substantial aid in the export of their products, and is covering the seas with enormous cargo craft. The heavily subsidized North German Lloyd Company enters into and departs from Sydney every four weeks, the vessels ranging from 7,000 to 12,000 tons burden, making time about equal to the French or English mail steamers. The German Australian Steamship Company makes about the same number of trips with its huge cargo tramps, one of which would carry almost all the freight brought to Sydney in American steamers during the whole year. These steamers run at very low expense, and the "regular lines" are heavily subsidized, so in freights our people are greatly handicapped.

German business methods are superior to ours. The American agent too often says: "You want this; it is the latest and best thing out." And while he is arguing his customer into a good humor, the German says, "Tell me just what you want and you shall have it by the *Barbarossa*." The American wants to satisfy himself; the German wants to satisfy his customer. The German is a merchant, while too often the American is a missionary. If the Germans would improve the quality of their wares and give half as much attention to style as Americans do, we would have to look out for our laurels. But in view of their enterprise, we have a hard competitor in this people.

As to the "showroom," although my opinions may not harmonize with those of others, a careful study of our foreign trade has convinced me that for German or United States merchants to establish and support showrooms in Sydney would be a waste of energy and money.

In the introduction of a new class of wares or in the exploitation of a new market, a "showroom" might be a very useful adjunct to the individual efforts of commercial men. Should new lines of transport penetrate China, Burma, Siam, or any other country to whose people our products are new, a showroom, where our fabrics could be exhibited among curious inquirers, would undoubtedly hasten the introduction of many kinds of goods. There are large centers of population where other foreign countries have a monopoly of the trade, and where little or no opportunity exists for a comparison of goods, and in such places showrooms might be very useful in gaining a foothold for the new candidates for commercial favor.

But none of these conditions exist in Sydney. Sydney is one of the strongest competitive points on the globe. She occupies a unique geographical position, almost on the opposite side of the world from all the great commercial centers. From all nations, from all climates, traders meet here with their various wares and compete in the open market on exactly equal terms. Heavy-laden ships come from the east, from the west, and from the north; around Cape of Good Hope, Cape Horn, through the Suez, and through Torres Straits. Ships from more than twenty nations ride at anchor in Sydney Harbor. The goods from every commercial country are pushed on the market by enterprising agents and displayed in great sale rooms, rivaling in appearance, in capacity, and in skill of management those of the most pretentious cities of Europe and America.

No people in the world are more familiar with the various products of competing nations or better informed as to the relative merits of goods.

There is hardly a shop (every place where goods or wares are sold is a "shop" under the law in this country) in Sydney where American articles are not displayed and sold. The same is true to a less degree of German, Austrian, French, Japanese, and other goods. At the annual "royal show," the finest exhibits are in American machinery.

American goods need no "introduction." They are familiar to every buyer in Sydney and so popular that we now sell almost three times as many articles as we did but six years ago, and almost as many as all other foreign countries combined.

Unless complete and up to date, a showroom would be worse than useless, and less than $500,000 as initial cost would not make it

worthy of the metropolis of Australia. Germany may establish such a display here, but its effects upon trade will hardly justify the outlay.

Americans are employing in the main the right methods here. They should study a little more carefully the customs of the foreign trade. The commission house on the "other side" should bring the manufacturer in closer touch with the agent abroad. The agent, being on the ground, is the best judge of the demands of the trade, and the "house" should see that the manufacturer furnishes to order.

American goods have won their way in the Australian markets. The people like them and want them, but there are some details which require change. In some classes of American products—as in maize—there seems to be a faulty system of inspection in New York; in others, such as cotton textiles, the manufacturers seem so wedded to their own likes that they decline to alter to suit foreign dealers. Many strive to build up a foreign trade and then throw it away on the slightest revival of the home market, while almost all of our great firms drive harder bargains as to terms than do any of their competitors.

But we are now in the export trade, and as we learn what the outside world wants we will doubtless soon correct these faults, and our foreign trade will work as smoothly as our domestic trade.

GEO. W. BELL,
Consul.

SYDNEY, *May 19, 1900.*

ELECTRIC FANS AND SODA-WATER FOUNTAINS IN ENGLAND.

The heat wave in London has created an opening for electric fans. The Daily Mail says that London is the most backward of all great capitals in provision for meeting heat.

Although "suction" ventilating fans, driven by electricity, are quite well known, I have never seen an electric fan of the cooling type in use in England. I wonder why our manufacturers in this line neglect their opportunity here.

The Mail adds:

> But there is one American summer cooler that is at last getting a foothold here. Ice-cream soda, the most delicious and refreshing of all beverages, is making its way. A few weeks back, several soda fountains were placed in chemists' shops here. For a time the London public did not properly appreciate them. A Holborn druggist at first reported that his sole patrons were American passers-by; but now he can not manufacture the drink fast enough to supply the demand.

It has been a surprise to me that the soda-water people have never taken Great Britain in hand. A chemist (druggist) told me the other day he had some friends who had lived in the United States and even worked at soda fountains there, and from their statements he was very anxious to put in a soda fountain. He had written to a firm in London representing an American soda-fountain manufacturer, but it replied that the cheapest fountain would cost 100 guineas ($510.98), and intimated that necessary accessories would be expensive. The matter was dropped. If an enthusiastic salesman had visited him the next day, had offered good terms, had explained the working details and promised to be on hand the first week of the fountain's operation, he would have sold a fountain and the seed sown would later have borne good fruit.

Another chemist has asked me for the address of a good soda-fountain manufacturer. These two instances indicate the possibilities in this branch of trade.

MARSHAL HALSTEAD,

BIRMINGHAM, *July 23, 1900.* *Consul.*

NOTES.

Certificates of Origin in Turkey.—The chargé at Constantinople, Mr. Griscom, writes under date of July 31 to confirm the cablegram published in ADVANCE SHEETS No. 798 (August 4, 1900).* The certificates, he is informed by the Minister of Foreign Affairs, should be such as the United States Government is accustomed to give, no particular form being required. Turkish consuls are authorized to charge 20 piasters (88 cents) as a fee for legalizing certificates. Certificates are to be given at the point of origin of the merchandise, and not at the point of shipment. For instance, goods shipping from Milwaukee via New York must have a certificate from the authorities in Milwaukee, and the visa of the Ottoman consul in New York is not necessary. Goods originating in cities where Ottoman consuls are located, viz, New York, Chicago, Boston, San Francisco, and Washington, must obtain the consular legalization to the certificates of origin. Mr. Griscom adds:

As to the local authority which should issue the certificates, the minister had no opinion; but I am informed that in a recent case the Ottoman customs authorities refused to recognize a general certificate of the Liverpool Chamber of Commerce testifying to the origin of a ship's cargo.

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Electrical Works in Germany.—Consul-General Guenther writes from Frankfort, July 24, 1900:

According to the Electro-Technical Gazette, German electrical works show great increase. On March 1 last, there were in operation 652 electrical works, against 489 the previous year. One hundred and twenty-two works were in progress of construction, of which 17 were to be ready for operation on July 1. Twenty-seven of all the works were completed before 1890; all the others were constructed within the last ten years. The number of places with electric light exceeds that of places illuminated by gas—900 against 850. The largest electrical plant is at Rheinfelden, with 12,360 kilowatts. Then follow one at Berlin, 9,230 kilowatts; one at Hamburg, 7,290 kilowatts; one at Munich, 6,110 kilowatts; two others at Berlin, of 5,452 and 5,312 kilowatts, respectively; one at Strassburg, 4,955 kilowatts; two others at Berlin, of 4,676 and 4,655 kilowatts,

* See also ADVANCE SHEETS No. 782 (July 17, 1900).

respectively; one at Chorzon, 4,310 kilowatts; one at Frankfort, 4,152 kilowatts; one at Dresden, 3,580 kilowatts; one at Stuttgart, 3,208 kilowatts; and another at Hamburg, 3,150 kilowatts. All the electrical works supplied last year 2,623,893 incandescent lamps, 50,070 arc lamps, 106,368 horsepower for electromotors, etc.

Electrical Power at Kiel.—Consul-General Guenther writes from Frankfort, July 14, 1900:

Steam power is to be superseded by electricity to a very considerable extent in the Government dockyard at Kiel, Germany. After experimenting with electric-power transmission on a comparatively small scale, the administration has now decided upon a bolder scheme, whereby all the machine tools, etc., installed in the different workshops are to be electrically driven. To this end, a power plant having a capacity of 3,500 horsepower is to be erected. This plant will also supply electrical energy for driving the powerful dockyard pumps.

Alcohol Plow Locomobiles in Germany.—Consul-General Guenther sends the following from Frankfort, July 27, 1900:

On July 25 the motor factory of Oberursel, near Frankfort, exhibited in the presence of a number of experts its new alcohol plow locomobiles. The plow locomobile is a 20-horsepower one, and confidence is expressed by competent judges that coal can in some cases be substituted by alcohol, which can be procured everywhere and at a low cost. The alcohol plow is said to have performed its work fully as well as a steam plow operated simultaneously. The problem of using alcohol for power purposes has been solved by the motor factory in evaporating denaturized alcohol of 90°. The construction and operation of the motor is, after this gasification, the same as that of a gas motor. The machine uses about a pint of alcohol an hour for 1 horsepower. It is claimed that the operating expense is 25 per cent lower than that of steam plows.

German Delivery of Goods by Street Cars.—Consul Hughes reports from Coburg, July 19, 1900:

In the Mittheilung des Vereins für Local und Strassenbahnwesen will be found an interesting paper giving details as to the way in which goods traffic is managed in three German cities—Gera, Frcst, and Spremberg. They are not large places, but industrially very active, especially in textiles. The power used on the tramways is

electricity or steam; the goods are transferred at the station into smaller trucks, or the railway cars are taken over the town lines. At Frost, there are three morning and three afternoon deliveries. At Gera, perambulator cars, with flangeless wheels apart from guide wheels, have been tried with indifferent success. All these plants have been worked with a profit for several years, and though people have grumbled, the utilization of tramways for the goods traffic has points which can not be dismissed without due consideration.

German Life Insurance in 1899.—Consul-General Guenther reports from Frankfort, July 14, 1900:

The most important statistics relative to German life insurance during the year 1899 are as follows:

The total number of companies was 44, against 42 in 1898. Three new companies were added—the Urania, of Dresden; Arminia, of Munich; and General German Insurance Company, of Stuttgart—while one company—the Life Insurance Company, of Baden—consolidated with the General Insurance Company, of Karlsruhe. Of the 44 companies, 22 are stock companies and 22 mutual ones. There were 152,828 policies issued for 598,679,825 marks ($142,485,798). The mortality rate during 1899 was favorable. The companies invest 76.8 per cent of their capital in first-class mortgages, and avoid as much as possible other securities, which are subject to considerable fluctuations in value. Government and other exchange securities are quoted at an unusually low rate, probably because of the large demand for money for industrial enterprises.

Tulle Factories in Germany.—The following, dated Leipzig, July 31, 1900, has been received from Consul Warner:

Those who are interested in German home trade have for some time been urging an increase in the number of tulle-weaving factories in this country, and their efforts are finally to be rewarded by the establishment of several new manufactories. The German manufacturers of embroidered goods will thus no longer be dependent upon England for their tulle. The new factory at Kappel is doing a very good business. It has already over eighty looms in operation and is putting in new ones as fast as possible. Another tulle factory has recently been established at Plaue, near Flöha. The oldest tulle factory in Germany is at Schneeberg, in the Erzgebirge; it has been in operation more than twenty years and has always been most prosperous.

American Lard in Germany.—Consul-General Guenther sends the following, dated Frankfort, July 20, 1900:

The agrarians and some butchers of Germany are trying to create a popular prejudice against the consumption of American meats, and particularly of American lard. The report of the board of chemical examiners of the city of Ulm (charged with the examination of adipose substances, or Fettwaaren) is of interest in this connection. The report covers the examinations of the last two years, and, after stating that the custom authorities are required to take samples of all large shipments of foreign butter, cheese, margarin, and hog's lard and have them examined, it says:

> Samples of American lard are very often received, taken from shipments amounting to several hundreds of pounds. A thorough chemical examination shows that American lard is not only the same as German lard in regard to smell, taste, and consistency, but that it frequently excels in dazzling white color. Among the several samples received, there was none to be objected to; the quality was faultless.

Paper from Turf.—Consul Mahin, of Reichenberg, under date of July 7, 1900, says:

According to the business columns of a Reichenberg newspaper, an Australian manufacturer, in his search for a cheap raw material for paper making, has successfully experimented with turf. It is alleged that from the cleaned and bleached turf fibers he produces a remarkably durable paper substance. This method is said to have been patented in various civilized countries and to be meeting with gratifying success. Paper of various kinds, pasteboard, and paper boxes are now made out of turf and are declared to be of good quality and to have great power of resistance.

Gold and Platinum in Russia.—Vice-Consul-General Hanauer, of Frankfort, under date of July 23, 1900, writes:

There are now but four works in the Ural region of Russia where gold is obtained by means of chemical process. The former gold mines, having given out, are not worked any more. While the world's annual gold production has increased 16.3 per cent during the last decade, that of Russia has remained as before, amounting to about 2,400 poods (86,668 pounds) yearly. But platinum, of which the Ural Mountains furnish 95 per cent of all of the world's supply, has increased both in quantity and value. The amount of this metal produced in the Ural region in 1899 was 13,242 pounds, against but 6,363 pounds in 1890.

Horsepower of Machinery at Paris Expositions.—Under date of July 14, 1900, Consul-General Guenther, of Frankfort, says:

The modern demand for high-power machinery is shown by a comparison of the machinery exhibited at the last four world's expositions at Paris. In 1867, there were exhibited and operated 52 machines, with an aggregate of 854 horsepower; in 1878, 41 machines, aggregating 2,533 horsepower; in 1889, 32 machines, with 5,320 horsepower; and in 1900, 37 machines, with 36,085 horsepower. The average horsepower per machine exhibited in 1867 was 16; in 1878, 62; in 1889, 170; and in 1900, 973—a most startling increase. France this year exhibits and operates 18 machines, with an aggregate of 14,435 and an average of 802 horsepower. Other countries operate 19 machines, with 21,650, or an average of 1,140, horsepower.

British Electrical Experts at Paris.—Under date of Birmingham, July 13, 1900, Consul Marshal Halstead reports that at the annual general meeting of the Electric Construction Company in London, the chairman announced that the company had sent to Paris, at a moderate expense, over twenty leading employees, in order that they might see in the exposition what is being done in the electric-machinery world abroad.

Quarantine in Norway.—Consul-General Bordewich sends from Christiania, July 27, 1900, copy and translation of a royal proclamation declaring that Smyrna, in Asia, Osaka, in Japan, Rio de Janeiro, in Brazil, and Melbourne, in Australia, should be considered infected with the oriental plague and quarantine regulations should take effect. The ports of Argentina are no longer to be considered infected. According to prior proclamations, Arabia, Persia, India, China, Formosa, Mauritius, the Sandwich Islands, and New Caledonia, as well as the city of Sydney, in Australia, and the ports in Egypt and Manila, are considered infected.

Flour Mills in Para.—Consul Kenneday writes from Para, July 17, 1900:

A movement is in progress, backed by foreign capitalists—principally French—to erect a gigantic flour mill here. The location is reported to have been selected, and the building will be completed not later than the 31st of March, 1901. The erection of this mill in Para will be keenly felt by American manufacturers of flour who are marketing their surplus in the Amazon Valley, though our exporters

may still be able to supply the grain. More important still is the reported formation of a syndicate, composed chiefly of Europeans, for the purpose of erecting a flour mill, a sawmill, and a sugar mill combined, the enterprise to be known as the "Para and Amazon Valley Milling Company." The entire outfit, I am informed, will be purchased in the United States, and an experienced American will be employed to superintend the erection of the mill. Dr. Bolhona will doubtless be selected to visit the United States with a view to completing arrangements.

Brazilian Market for Porcelain and Glass.—Minister Bryan writes from Petropolis, July 9, 1900, that one of the leading importers of china and glass in Rio de Janeiro has informed him that his firm has successfully placed United States glassware on sale, the action having been taken at the recommendation of United States Consul-General Seeger. Mr. Bryan expresses the belief that with small effort this branch of trade can be extended in Brazil. He sends for distribution among manufacturers, through the Bureau of the American Republics,* a list of dealers in these articles in Rio de Janeiro.

Proposed Tariff Increase in Brazil.—Consul-General Seeger reports from Rio de Janeiro, July 2, 1900:

There is hardly any doubt that the Brazilian Congress, now in session, will pass a bill raising the proportion of the import duties which must be paid in gold from 15 per cent to 25 per cent. This, according to the rate of exchange, will be equivalent to a horizontal increase of the import duties of from 20 to 30 per cent. It can not fail to still further diminish the imports into Brazil, without, however, increasing home manufacture, many branches of which are not susceptible of advantageous development.

Guatemalan Export Tax on Coffee.—Consul-General McNally, of Guatemala, under date of July 14, 1900, says that the Government of Guatemala has placed an export duty of 6 pesos a quintal ($2.63† per 220 pounds) on coffee. The crop to be picked in September or October, adds Mr. McNally, is the largest in the history of Guatemala. It is estimated that the yield will be between 800,000 and 1,000,000 quintals. The quality is said to be the best.

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*To which the list has been forwarded.

†The United States Treasury valuation of the Central American peso, July 1, 1900, was 43.8 cents.

Washout on Guatemala Railway.—Consul-General McNally reports from Guatemala, July 27, 1900, that owing to the heavy rains a serious washout has occurred on the Northern Railway, which extends from Puerto Barrios to El Rancho. Several bridges have been destroyed, and traffic is interrupted. The mails from the United States are delayed four or five days. The Government has appointed a corps of engineers to estimate the damages, with a view to immediately repairing the line.

Sanitary Conditions at Port Limon.—Minister Merry writes from San José, July 5, 1900:

Sanitary conditions at the port of Limon have been much improved, doubtless on account of the $800,000 expended there by the Government of Costa Rica in public improvements, now approaching completion. No tropical port with a banana-producing country in its contiguous interior can be entirely free from malaria; but the fact that Limon has been, thus far during the present year, practically free of yellow fever is suggestive of encouraging results in combating that disease by sanitary improvements, and indicates that this may now claim to be one of the healthiest banana ports in Central America.

Pearl Growing in Japan.—Consul Marshal Halstead sends from Birmingham, July 16, 1900, clipping from the London Daily Mail embodying a dispatch from a correspondent at Tokyo, Japan, as follows:

WHERE PEARL GROWING PAYS.

Artificial pearl growing is a new industry lately started by Mr. Kokichi Mikimoto, in Miye prefecture. The extent of his success in this enterprise may be calculated by the following incident:

Taking advantage of the presence of the Crown Prince and Princess at Ise on June 25, Mr. Mikimoto submitted, through Mr. Ogura, prefectural governor, twenty-seven pearls of various sizes, the products of his pearl bed, for the inspection of their highnesses.

The Crown Prince was, it is said, so highly pleased with the beautiful gems that he bought up the whole twenty-seven, which were priced from 5 to 100 yen ($2.49 to $49.80) each.

Siamese Demand for Railway Materials and Firearms.—Minister King, of Bangkok, under date of June 20, 1900, informs the Department that he has succeeded in securing an open tender for American manufactures in the construction of the Petchaburee Railroad by the Siamese Government. Bids for the construction of a

plant for the manufacture of ammunition in that country were opened to American competition in March, and a bid was asked from the United States on 20,000 rifles and 10,000,000 cartridges.

Canadian Lobsters and Wood Pulp in France.—Consul-General Turner writes from Ottawa, July 31, 1900:

The Department of Trade and Commerce here received yesterday the following cablegram from the high commissioner at London, under date of July 28, 1900:

Informed that tinned lobsters and wood pulp forwarded to France from Canada via New York after 15th ultimo no longer granted minimum tariff, owing to establishment direct line of steamers between Canada and France.

Strike in Belgian Glass Works.—Consul Roosevelt, of Brussels, under date of July 19, 1900, writes:

The Union of Glass Workers, numbering 6,000, recently notified the manufacturers that, as their demands had not been granted, they would abandon work. Manufacturers at once replied by announcing the shutting down of all the works on August 1. Several glass works are already idle.

Salt Prices in Germany.—Consul Warner reports from Leipzig, July 21, 1900, that on the 1st of July, 1900, the price of salt in Germany was advanced from 8 marks to 8.70 marks ($1.90 to $2.07) per 120 pounds. The salt mines of the country are owned and operated by the Government. The increase is attributed to the rise in the price of labor.

Fruit Crop of Silesia.—Under date of July 11, 1900, Consul Erdman writes from Breslau:

The crop of currants, strawberries, cherries, plums, pears, and apples is the largest known for years in the province of Silesia.

Consular Reports Transmitted to Other Departments.—The following reports from consular officers (originals or copies) have been transmitted since the date of the last report to other Departments for publication or for other action thereon:

Consular officer reporting.	Date.	Subject.	Department to which referred.
W. H. H. Graham, Winnipeg..	Aug. 15, 1900	Crops.....	Department of Agriculture.
R. Guenther, Frankfort.....	Aug. 4, 1900	American meat products..	Do.

FOREIGN REPORTS AND PUBLICATIONS.

The Hankau-Pekin Railway.—The Board of Trade Journal, London, July 26, 1900, has the following:

The report on Hankau issued by the Chinese imperial customs for the year 1899, which bears the date of February 7, stated that progress was at that time being made in the construction of the Belgian Hankau-Pekin Railway. An embankment has been completed for a distance of 80 miles from Hankau and rails laid on 27 miles of this track. About May last, building material for the line was to be conveyed from Hankau by rail as far as San-ch'a-p'u, 100 miles distant; and at this rate of construction the line as far as Hsin-Yang, 346 miles distant, is expected to be in working order in the beginning of 1902. The principal towns or cities through which the railway will run and their distances from Hankau are: Shê-k'ow, 35 miles; San-ch'a-p'u, 100 miles; Hua-yüan, 174 miles; Huang-hsi-chiang, 237 miles; Kwang-shui, 253 miles; Hsin-tien, 295 miles; and Hsin-yang, 346 miles. The principal station, or depot, at this end is to be on the river front, 5 miles below Hankau, where a stone "bund" (wharf) will be erected and rails carried along it for the convenience of steamers loading and discharging. Two other stations are to be provided—one behind the foreign concessions and another at the Han River—for the convenience of passengers chiefly. The route of the projected railway from Hankau to Canton has been surveyed and the contract is held by the American China Development Company. Work had not been started at the Hankau end at the date of the report, viz, in February last.

New Roads and Railways in Honduras.—The following is taken from the Board of Trade Journal, London, June 28, 1900:

A report, dated the 23d ultimo, has been received at the Foreign Office from Her Majesty's consul at Tegucigalpa, inclosing copy and translation of contract with United States commissioners recently approved by Congress for the construction of a road, a railway, and the navigation of some rivers in Honduras. The road is to be between the rivers Sulaco and Guayape; the railway between the rivers Sulaco, Humuya, Comayagua or Ulua, and the Guayape or Jalan; and as regards the navigation, this is to be of the rivers Ulua or Venta, Humuya or Comayagua, Chamelecon, and Sulaco, and their respective tributaries.

Article 9 of the contract states that "in guaranty that they will comply with the obligations they have contracted in respect to the construction of the roads, the concessionnaires will deposit, on the approval of this contract by the National Congress, to the order and satisfaction of the Government, the sum of 5,000 pesos silver* ($2,190) in money of the best fineness and legally current in Honduras, which sum shall remain for the benefit of the Government in case that the concessionnaires do not begin the works or carry them forward, or if they fail in any of the stipulations of this contract."

* The silver peso was valued at 43.8 cents, July 1, 1900.

The sum of 5,000 pesos ($2,190) referred to above shall only be returned to the concessionnaires when there has been duly constructed 80 kilometers of road (say, 50 miles). A special Congress is now in session considering a new proposal for the building of the Interoceanic Railway of Honduras.

Beet Sugar in Spain.—The following is from the British Trade Journal, London, August 1, 1900:

Since the colonies have been lost to Spain and cheap cane sugar can no longer be imported from Cuba, the Spaniards have turned their attention to developing their own resources. Extensive acreages have been sown with beet, and beet-sugar factories are being erected. One result of this movement is a largely increased demand for fertilizers, such as sulphate of ammonia, superphosphates of lime, and nitrate of soda. This demand has become so extensive that Spanish importers are seeking additional sources of supply. We have before us a copy of a letter from a firm of Spanish bankers which states that some 50,000 tons of sulphate, 8,000 tons of superphosphates, and 20,000 tons of nitrate are annually imported into Valencia alone, chiefly from Great Britain. The firm referred to are prepared to take full steamer cargoes of from 3,000 to 5,000 tons from the United States. They point out that with the present high prices of coal in Great Britain, the United States may be able to compete in the supply of artificial fertilizers, notwithstanding the higher cost of freight. What is wanted for Spain is sulphate of ammonia of good gray, yellow, or brown color—good gray preferred—24 to 25 per cent of ammonia, or 20 to 21 per cent of azote-superphosphates of lime soluble in water, or 10 to 20 per cent soluble in water and citrate. All the goods should come in strong, single bags of 100 kilograms gross each.

Agricultural Machinery in Turkey.—The Nachrichten für Handel und Industrie, Berlin, quotes from the Moniteur Officiel du Commerce, as follows:

The trade in agricultural machinery in Turkey is only of secondary importance; the small farmers are poor, having enough to do to support life and pay their taxes, and do not think of buying improved agricultural tools. On the large estates, an energetic administration is lacking; agricultural machinery costs too much in a country where the land has almost no value. Plows, with the exception of plow-shares—which are forged in the nearest village—are made entirely of wood on the farms themselves. The large plow, worked by six pair of oxen, serves for deep plowing, and the smaller plow, with two oxen, is used for sowing and for breaking up of fields. In European Turkey, the Universal plow, of German manufacture, is in great demand; in Asia Minor, the preference is given to the American plow "Olive;" in the other provinces, we find the English Howard plow, the American turning moldboard plow, and the French—Brabant—steam plows are imported only to a very limited extent. Steam engines of any kind require an expert workman, who must be prepared to make the necessary repairs himself. Coal, too, in remote places is disproportionately dear. Harrows, corn-shelling machines, refining machines, and steam thrashing machines are also imported. France furnishes most of the refining machines, Great Britain the few thrashing machines. Other countries have a share in the import of other agricultural tools. Reaping

machines have not so far been satisfactory. Prices of plows range from $4.83 to $15.44; shelling machines, from $9.65 to $28.95; refining machines, from $57.90 to $77.20. Steam thrashing machines sell for $3,860. Six months' time is generally given for payments. Agricultural tools enter free of duty. Parts of machinery and pieces for repairing are subject to an import duty of 8 per cent.

Tinned Meats in China.—The British Trade Journal, London, August 1, 1900, says:

The British acting consul at Chinkiang reports that a new industry in the shape of a canning factory has been established there during the past year, the intention being to supply European markets with tinned meats, more especially game and wild fowl. The agent is a British subject, but there is a French "artist" in charge of the culinary department. The supply of wild fowl, at a ridiculously small price, is practically unlimited; pheasants, however, are getting scarcer each year.

CONTENTS.

		Page.
I.—Knitting Industry in Latin America		291
(Mexico, 291—Honduras, 294—Nicaragua, 295—Salvador, 295—Argentine Republic, 295—Brazil, 295—Chile, 296—Paraguay, 297—Uruguay, 297—Venezuela, 298.)		
II.—The Manavi, or Panama, Hat	*De Leon*	298
III.—Hats in Mexico	*Snyder*	301
IV.—Port Works at Montevideo	*Swalm*	302
V.—Port Charges in Argentina	*Jones*	302
VI.—Cable Service at Pernambuco	*Gunsaulus*	306
VII.—Financial Measures in Costa Rica	*Merry*	306
VIII.—Yerba-Mate Cultivation in Paraguay	*Ruffin*	307
IX.—Haitian Export Dues on Fruit	*Battiste*	308
X.—Franco-Haitian Commercial Treaty	*Battiste*	309
XI.—Competition with American Kerosene in Australia	*Bray*	313
XII.—Economic Conditions in Zanzibar	*Childs*	314
XIII.—Trade Conditions in South Africa	*Guenther*	316
XIV.—Demand for Iron Posts in South Africa	*Stowe*	318
XV.—Quinine Auction in Batavia	*Rairden*	320
XVI.—Tea Cultivation in Malacca	*Moseley*	320
XVII.—The Tea Trade of England with India, Ceylon, and China,	*Harris*	322
XVIII.—German Sugar in Japan	*Murphy*	322
XIX.—Dredge for Calcutta	*Winslow*	323
XX.—The Formosa Camphor Monopoly	*Davidson*	325
XXI.—Carriages and Harness in Hongkong	*Wildman*	327
XXII.—The Trans-Siberian Railroad	*Holloway*	328
XXIII.—Increase in Russian Tariff	*Peirce*	329
XXIV.—British Imperial Preferential Trade	*Boyle*	331
XXV.—New Scheme to Push British Trade	*Halstead*	332
XXVI.—Importation of Dogs into Great Britain		333
XXVII.—Steamship Service in London: Tramways	*Halstead*	336
XXVIII.—London Underground Railway	*Osborne*	340
XXIX.—Electric Railway in Birmingham	*Halstead*	341
XXX.—Street Cars in Glasgow	*Taylor*	344

		Page.
XXXI.—American Shirt Waists and Underwear in England	*Halstead*	346
XXXII.—American Skilled Labor and Machinery in Breslau	*Erdman*	348
XXXIII.—United States Sample Room in Zurich	*Lieberknecht*	349
XXXIV.—Opening for American Folding Beds in South Germany,	*Worman*	350
XXXV.—American Shoes in Germany	*Warner*	351
XXXVI.—Ohio Coal in Germany	*Mason*	353
XXXVII.—American Pig Iron in Germany	*Erdman*	354
XXXVIII.—Market in France for Measuring Tools	*Thackara*	354
XXXIX.—A New Way to Increase our Exports	*Hanauer*	356
XL.—Krupp Iron Works	*Guenther*	356
XLI.—Critical Situation in British Iron Trade	*Halstead*	358
XLII.—Depression in European Textile Industries	*Mahin*	359
XLIII.—Textile Congress at Berlin	*Atwell*	361
XLIV.—Strikes in Germany	*Guenther*	362
XLV.—Labor Conditions in France	*Covert*	362
XLVI.—Antwerp Ivory Market	*Lincoln*	367
XLVII.—German Rubber Trade	*Hughes*	368
XLVIII.—German Case-Making Industry	*Hughes*	369
XLIX.—German Mask Industry	*Hughes*	371
L.—Electric Traction for Canals	*Guenther*	372
LI.—Silver-Mounted Ware a Menace to Health	*Schumann*	374
LII.—Dutch Exports to Cuba	*Listoe*	374
LIII.—Lamps in Austria	*Hossfeld*	375
LIV.—Lamps in Marseilles	*Skinner*	377
LV.—New Lines of Steamers between France and the United States	*Thackara*	378
LVI.—Berlin Exposition of Fire Preventing and Extinguishing Apparatus	*Mason*	380
LVII.—Leipzig City Pawn Shop and Savings Institution	*Warner*	384
LVIII.—Milk Inspection in Leipzig	*Warner*	385
LIX.—Sausages in Germany	*Guenther*	387
LX.—Currant Crop of Greece	*Maximos*	388
LXI.—Wheat and Flour at Malta	*Grout*	389
LXII.—Almonds and Filberts in Spain	*Summers*	392
LXIII.—Tomatoes and Cantaloupes in Europe	*Hanauer*	394
LXIV.—British Butter, Cheese, and Egg Market	*Halstead*	395
LXV.—Fruit Prices in London	*Halstead*	397
LXVI.—Apple Crop of Canada	*Johnson*	398
LXVII.—Tar-Macadam Pavement in Ontario	*Shepard*	399
LXVIII.—Notes from Dawson and Tanana	*McCook*	400
LXIX.—Guatemalan Northern Railway	*McNally*	401

Page.

LXX.—NOTES (American versus German Shoes in Switzerland—British Shoe Trade—Orris-Root Trust—Consular Invoices in Salvador—Cereal Crops of Victoria—Iron Bedsteads and Hardware in Syria—Automobile Regulations in Chemnitz—Automobile Taxes in Spain—Method of Reckoning Time in Spain—Clocks in West Africa—German Trade in Scissors and Knives—Swedish Imports from Germany—Glass Industry in Germany—Telegraphone Patent Rights—Exports of German Steel Rails—German Rules as to Showing of Flags by Vessels—Prussian Freight Rates on Coal—German Exhibits in Paris—Small Electric Motors in Germany—Peat as Fuel in Russia—Complaints of Russian Wheat—New Use of Liquid Air—Protecting the German Corset Industry—Turkish Purchase of War Vessels—Need of Communication with Singapore—New Steamship Line to Mexico—Steamship Service with Para: Financial Crisis—Warning to Emigrants to Buenos Ayres—Pearl Fishing in Venezuela—Harbor Tug for Falkland Islands—New Bank in Antofagasta—Venezuelan Market for Cloak Goods—Cotton Growing in Salvador: Statistical Bureau—British School of Chinese—Spanish Commercial Museum in Vienna—American Goods in the Levant—Swiss Steel Industry—Weather Bureau for Germany—American Coal in Russia—American Factory Timekeepers Wanted in Germany—Austrian Demand for Watches—Demand for Trunks and Stationery in Madagascar—Japanese Emigrants—Consular Reports Transmitted to Other Departments) 403

LXXI.—FOREIGN REPORTS AND PUBLICATIONS (Mines and Industries of Chile—Railway Construction in Greece—Development of Siberian Industries—Import of Musical Instruments into the Philippines—Gold Discoveries in Japan—Attar-of-Rose Industry in Bulgaria—New Manufactories in Mexico—Automobiles in the Argentine Republic)..... 418

REPORTS BY COUNTRIES.

	Page.
AFRICA, SOUTH:	
Demand for iron posts in	318
Trade conditions in	316
AFRICA, WEST:	
Clocks in	407
ARGENTINE REPUBLIC:	
Knitting industry in	295
Port charges	302
Warning to emigrants to Buenos Ayres	414
ASIA MINOR:	
American goods in the Levant	416
AUSTRALIA:	
Cereal crops of Victoria	405
Competition with American kerosene in	313
AUSTRIA:	
Demand for watches in	417
Lamps in	375
Spanish commercial museum in Vienna	415
BELGIUM:	
Antwerp ivory market	367
BRAZIL:	
Cable service at Pernambuco	306
Financial crisis, Para	413
Knitting industry in	295
CANADA:	
Apple crop of	398
Notes from Dawson and Tanana	400
Tar-macadam pavement in Ontario	399
CEYLON:	
Tea trade with England	322
CHILE:	
Knitting industry in	296
New bank in Antofagasta	415
CHINA:	
Carriages and harness in Hongkong	327
Tea trade with England	322
COSTA RICA:	
Financial measures in	306
ECUADOR:	
The Manavi, or Panama, hat	298
ENGLAND:	
American shirt waists and underwear in	346
Electric railway in Birmingham	341
Fruit prices in London	397
London underground railway	340
Orris-root trust	404
Steamship service in London	336
Tea trade with India, Ceylon, and China	322
Tramways in London	337

EUROPE: Page.
Depression in textile industries of 359
Tomatoes and cantaloupes in 394
FALKLAND ISLANDS:
Harbor tug for 414
FORMOSA:
Camphor monopoly 325
FRANCE:
Commercial treaty with Haiti 309
German exhibits in Paris 410
Labor conditions in 362
Lamps in Marseilles 377
Market in, for measuring tools 354
New lines of steamers between United States and 378
GERMANY:
A new way to increase our exports 356
American factory timekeepers wanted in Germany 417
American pig iron in 354
American shoes in 351
American skilled labor and machinery in Breslau 348
Automobile regulations in Chemnitz 406
Berlin, exposition of fire preventing and extinguishing apparatus 380
Case-making industry 369
Complaints of Russian wheat in 411
Electric traction for canals in 372
Exports of steel rails 409
Glass industry in 409
Krupp iron works 356
Leipzig city pawn shop and savings institution 381
Mask industry 371
Milk inspection in Leipzig 385
New use of liquid air in 411
Ohio coal in 353
Opening for American folding beds in South 350
Protecting the German corset industry 412
Prussian freight rates on coal 416
Rubber trade of 368
Rules as to showing of flags by vessels 410
Sausages in 387
Silver-mounted ware a menace to health 374
Small electric motors in 410
Strikes in 362
Telegraphone patent rights 409
Textile congress at Berlin 361
Trade in scissors and knives 408
Weather bureau for 416
GREAT BRITAIN:
Butter, cheese, and egg market 395
Critical situation in the iron trade of 358
Imperial preferential trade 331
Importation of dogs into 333
New scheme to push trade of 332
School of Chinese in 415
Shoe trade of 403

	Page.
GREECE:	
Currant crop of	388
GUATEMALA:	
Northern Railway of	401
HAITI:	
Commercial treaty with France	309
Export dues on fruit	308
HONDURAS:	
Knitting industry in	294
INDIA:	
Dredge for Calcutta	323
Tea trade with England	322
JAPAN:	
Emigrants to United States	417
German sugar in	322
JAVA:	
Quinine auction in Batavia	320
MADAGASCAR:	
Demand for trunks and stationery in	417
MALACCA:	
Tea cultivation in	320
MALTA:	
Wheat and flour at	389
MEXICO:	
Hats in	301
Knitting industry in	291
New steamship line to	413
NETHERLANDS:	
Exports to Cuba	374
NICARAGUA:	
Knitting industry in	295
PARAGUAY:	
Knitting industry in	297
Yerba-mate cultivation in	307
RUSSIA:	
American coal in	416
Increase in tariff of	329
Peat as fuel in	411
SALVADOR:	
Consular invoices in	405
Cotton growing in	415
Knitting industry in	295
Statistical bureau in	415
SCOTLAND:	
Street cars in	344
SIBERIA:	
Railroad, Trans-Siberian	328
SPAIN:	
Almonds and filberts in	392
Automobile taxes in	407
Method of reckoning time in	407
SWEDEN:	
Imports from Germany	408

	Page.
SWITZERLAND:	
American versus German shoes in	403
Steel industry of	416
United States sample room in Zurich	349
SYRIA:	
Iron bedsteads and hardware in	406
TURKEY:	
Purchase of war vessels by	412
UNITED STATES:	
Japanese immigrants	417
Need of communication with Singapore	412
New lines of steamers between France and	378
Steamship service with Para	413
URUGUAY:	
Knitting industry in	297
Port works at Montevideo	302
VENEZUELA:	
Knitting industry in	298
Market for cloak goods	415
Pearl fishing in	414
ZANZIBAR:	
Economic conditions in	314

Full directions for binding the Consular Reports are given in No. 131, page 663.

PUBLICATIONS OF THE BUREAU OF FOREIGN COMMERCE.*

The publications of the Bureau of Foreign Commerce, Department of State, are:

I.—COMMERCIAL RELATIONS, being the annual reports of consular officers on the commerce, industries, navigation, etc., of their districts.

II.—CONSULAR REPORTS, issued monthly, and containing miscellaneous reports from diplomatic and consular officers.

III.—ADVANCE SHEETS, CONSULAR REPORTS, issued daily, except Sundays and legal holidays, for the convenience of the newspaper press, commercial and manufacturing organizations, etc.

IV.—EXPORTS DECLARED FOR THE UNITED STATES, issued quarterly, and containing the declared values of exports from the various consular districts to the United States for the preceding three months.

V.—SPECIAL CONSULAR REPORTS, containing series of reports from consular officers on particular subjects, made in pursuance to instructions from the Department.

Following are the special publications issued by the Bureau prior to 1890:

Labor in Europe, 1878, one volume; Labor in Foreign Countries, 1884, three volumes; Commerce of the World and the Share of the United States Therein, 1879; Commerce of the World and the Share of the United States Therein, 1880–81; Declared Exports for the United States, First and Second Quarters, 1883; Declared Exports for the United States, Third and Fourth Quarters, 1883; Cholera in Europe in 1884, 1885; Trade Guilds of Europe, 1885; The Licorice Plant, 1885; Forestry in Europe, 1887; Emigration and Immigration, 1885–86 (a portion of this work was published as CONSULAR REPORTS No. 76, for the month of April, 1887); Rice Pounding in Europe, 1887; Sugar of Milk, 1887; Wool Scouring in Belgium, 1887; Cattle and Dairy Farming in Foreign Countries, 1888 (issued first in one volume, afterwards in two volumes); Technical Education in Europe, 1888; Tariffs of Central America and the British West Indies, 1890.

The editions of all these publications except Tariffs in Central America, etc., are exhausted and the Department is, therefore, unable to supply copies.

In 1890, the Department decided to publish reports on special subjects in separate form, to be entitled SPECIAL CONSULAR REPORTS. There are now the following SPECIAL CONSULAR REPORTS:

Vol. 1 (1890).—Cotton Textiles in Foreign Countries, Files in Spanish America, Carpet Manufacture in Foreign Countries, Malt and Beer in Spanish America, and Fruit Culture in Foreign Countries.

Vol. 2 (1890 and 1891).—Refrigerators and Food Preservation in Foreign Countries, European Emigration, Olive Culture in the Alpes Maritimes, and Beet-Sugar Industry and Flax Cultivation in Foreign Countries.

Vol. 3 (1891).—Streets and Highways in Foreign Countries. (New edition, 1897.)

Vol. 4 (1891).—Port Regulations in Foreign Countries.

Vol. 5 (1891).—Canals and Irrigation in Foreign Countries. (New edition, 1898.)

Vol. 6 (1891 and 1892).—Coal and Coal Consumption in Spanish America, Gas in Foreign Countries, and India Rubber.

Vol. 7 (1892).—The Stave Trade in Foreign Countries and Tariffs of Foreign Countries.

Vol. 8 (1892).—Fire and Building Regulations in Foreign Countries.

* Formerly Bureau of Statistics. Name changed to Bureau of Foreign Commerce by order of the Secretary of State, July 1, 1897.

Vol. 9 (1892 and 1893).—Australian Sheep and Wool and Vagrancy and Public Charities in Foreign Countries.

Vol. 10 (1894).—Lead and Zinc Mining in Foreign Countries and Extension of Markets for American Flour. (New edition, 1897.)

Vol. 11 (1894).—American Lumber in Foreign Markets. (New edition, 1897.)

Vol. 12 (1895).—Highways of Commerce. (New edition, 1899.)

Vol. 13 (1896 and 1897).—Money and Prices in Foreign Countries.

Vol. 14 (1898).—The Drug Trade in Foreign Countries.

Vol. 15 (1898).—Part I. Soap Trade in Foreign Countries; Screws, Nuts, and Bolts in Foreign Countries; Argols in Europe, Rabbits and Rabbit Furs in Europe, and Cultivation of Ramie in Foreign Countries. Part II. Sericulture and Silk Reeling and Cultivation of the English Walnut.

Vol. 16 (1899).—Tariffs of Foreign Countries. Part I. Europe. Part II. America. Part III. Asia, Africa, Australasia, and Polynesia. Supplement (1900). Tariffs of Chile and Nicaragua.

Vol. 17 (1899).—Disposal of Sewage and Garbage in Foreign Countries; Foreign Trade in Coal Tar and By-Products.

Vol. 18 (1900).—Merchant Marine of Foreign Countries.

Vol. 19 (1900).—Paper in Foreign Countries; Uses of Wood Pulp.

Vol. 20 (1900).—Part I. Book Cloth in Foreign Countries, Market for Ready-Made Clothing in Latin America, Foreign Imports of American Tobacco, and Cigar and Cigarette Industry in Latin America. Part II. School Gardens in Europe. Part III. The Stave Trade in Foreign Countries.

Vol. 21 (1900).—Part I. Foreign Markets for American Coal. Part II. Vehicle Industry in Europe.

Of these SPECIAL CONSULAR REPORTS, Australian Sheep and Wool, Cotton Textiles in Foreign Countries; Disposal of Sewage, etc.; Files in Spanish America, Fire and Building Regulations, Gas in Foreign Countries, India Rubber, Lead and Zinc Mining, Malt and Beer in Spanish America, Port Regulations, Refrigerators and Food Preservation, Soap, etc.; Sericulture, etc.; Vagrancy, etc., are exhausted, and no copies can be supplied by the Department.

There was also published, in 1899, Proclamations and Decrees during the War with Spain, comprising neutrality circulars issued by foreign countries, proclamations by the President, orders of the War and Navy Departments, and war decrees of Spain.

Of the monthly CONSULAR REPORTS, many numbers are exhausted or so reduced that the Department is unable to accede to requests for copies. Of the publications of the Bureau available for distribution, copies are mailed to applicants without charge. In view of the scarcity of certain numbers, the Bureau will be grateful for the return of any copies of the monthly or special reports which recipients do not care to retain. Upon notification of willingness to return such copies, the Department will forward franking labels to be used in lieu of postage in the United States, Canada, the Hawaiian Islands, and Mexico.

Persons receiving CONSULAR REPORTS regularly, who change their addresses, should give the old as well as the new address in notifying the Bureau of the fact.

In order to prevent confusion with other Department bureaus, all communications relating to consular reports should be carefully addressed, "Chief, Bureau of Foreign Commerce, Department of State, Washington, U. S. A."

VALUES OF FOREIGN COINS AND CURRENCIES.

The following statements show the valuation of foreign coins, as given by the Director of the United States Mint and published by the Secretary of the Treasury, in compliance with the first section of the act of March 3, 1873, viz: "That the value of foreign coins, as expressed in the money of account of the United States, shall be that of the pure metal of such coin of standard value," and that "the value of the standard coins in circulation of the various nations of the world shall be estimated annually by the Director of the Mint, and be proclaimed on the 1st day of January by the Secretary of the Treasury."

In compliance with the foregoing provisions of law, annual statements were issued by the Treasury Department, beginning with that issued on January 1, 1874, and ending with that issued on January 1, 1890. Since that date, in compliance with the act of October 1, 1890, these valuation statements have been issued quarterly, beginning with the statement issued on January 1, 1891.

The fact that the market exchange value of foreign coins differs in many instances from that given by the United States Treasury has been repeatedly called to the attention of the Bureau of Foreign Commerce. An explanation of the basis of the quarterly valuations was asked from the United States Director of the Mint, and under date of February 7, 1898, Mr. R. E. Preston makes the following statement:

"When a country has the single gold standard, the value of its standard coins is estimated to be that of the number of grains fine of gold in them, 480 grains being reckoned equivalent to $20.67 in United States gold, and a smaller number of grains in proportion. When a country has the double standard, but keeps its full legal-tender silver coins at par with gold, the coins of both gold and silver are calculated on the basis of the gold value.

"The value of the standard coins of countries with the single silver standard is calculated to be that of the average market value of the pure metal they contained during the three months preceding the date of the proclamation of their value in United States gold by the Secretary of the Treasury. The value of the gold coins of silver-standard countries is calculated at that of the pure gold they contain, just as if they had the single gold standard.

"These valuations are used in estimating the values of all foreign merchandise exported to the United States. The value of the Indian rupee, although calculated according to law at the value of the pure metal contained therein, has a commercial value above the value of the silver bullion; consequently the value for customs purposes is determined in each case by the consular certificates attached to the invoice of exports from that country to the United States."

The following statements, running from January 1, 1874, to October 1, 1900, have been prepared to assist in computing the values in American money of the trade, prices, values, wages, etc., of and in foreign countries, as given in consular and other reports. The series of years are given so that computations may be made for each year in the proper money values of such year. In hurried computations, the reductions of foreign currencies into American currency, no matter for how many years, are too often made on the bases of latest valuations. When it is taken into account

that the ruble of Russia, for instance, fluctuated from 77.17 cents in 1874 to 37.4 cents in April, 1897, such computations are wholly misleading. All computations of values, trade, wages, prices, etc., of and in the "fluctuating-currency countries" should be made in the values of their currencies in each year up to and including 1890, and in the quarterly valuations thereafter.

To meet typographical requirements, the quotations for the years 1876, 1877, 1879, 1881, 1882, and 1891–95 are omitted, these years being selected as showing the least fluctuations when compared with years immediately preceding and following.

To save unnecessary repetition, the estimates of valuations are divided into three classes, viz: (A) countries with fixed currencies, (B) countries with fluctuating currencies, and (C) quarterly valuations of fluctuating currencies.

A.—*Countries with fixed currencies.*

The following official (United States Treasury) valuations of foreign coins do not include "rates of exchange."

Countries.	Standard.	Monetary unit.	Value in U.S. gold.	Coins.
Argentine Republic*.	Gold and silver..	Peso	$0.96,5	Gold—Argentine ($4.82,4) and ½ Argentine; silver—peso and divisions.
Austria-Hungary†.....	Gold	Crown.....	.20,3	Gold—20 crowns ($4.05,2) and 10 crowns.
Belgium	Gold and silver..	Franc.....	.19,3	Gold—10 and 20 franc pieces; silver—5 francs.
Brazil.....	Gold	Milreis.....	.54,6	Gold—5, 10, and 20 milreis; silver—½, 1, and 2 milreis.
British North America (except Newfoundland).	.....do	Dollar.....	1.00	
British Honduras.....	.....do	.....do	1.00	
Chile.....	.....do	Peso.....	.36,5	Gold—escudo ($1.25), doubloon ($3.65), and condor ($7.30); silver—peso and divisions.
Costa Rica.....	.....do	Colon.....	.46,5	Gold—2, 5, 10, and 20 colons; silver—5, 10, 25, and 50 centisimos.
Cuba	Gold and silver..	.....do	.92,6	Gold—doubloon ($5.01,7); silver—peso (60 cents).
Denmark	Gold	Crown.....	.26,8	Gold—10 and 20 crowns.
Egypt.....	.....do	Pound (100 piasters).	4.94,3	Gold—10, 20, 50, and 100 piasters; silver—1, 2, 10, and 20 piasters.
Finland.....	.....do	Mark.....	.19,3	Gold—10 and 20 marks ($1.93 and $3.85,9).
France	Gold and silver..	Franc.....	.19,3	Gold—5, 10, 20, 50, and 100 francs; silver—5 francs.
Germany	Gold	Mark.....	.23,8	Gold—5, 10, and 20 marks.
Great Britain.....	.....do	Pound sterling...	4.86,6½	Gold—sovereign (pound sterling) and half sovereign.
Greece.....	Gold and silver..	Drachma.....	.19,3	Gold—5, 10, 20, 50, and 100 drachmas; silver—5 drachmas.
Haiti	.....do	Gourde.....	.96,5	Silver—gourde.
Italy.....	.....do	Lira	.19,3	Gold—5, 10, 20, 50, and 100 lire; silver—5 lire.
Japan‡	Gold	Yen.....	.49,8	Gold—1, 2, 5, 10, and 20 yen.
Liberia	.....do	Dollar.....	1.00	
Netherlands§.....	Gold and silver..	Florin	.40,2	Gold—10 florins; silver—½, 1, and 2½ florins.
Newfoundland	Gold	Dollar.....	1.01,4	Gold—$2 ($2.02,7).
Portugal.....	.....do	Milreis.....	1.08	Gold—1, 2, 5, and 10 milreis.
Russia‖.....	.....do	Ruble.....	.51,5	Gold—imperial ($7.718) and ½ imperial ($3.80); silver—¼, ½, and 1 ruble.
Spain.....	Gold and silver..	Peseta.....	.19,3	Gold—25 pesetas; silver—5 pesetas.
Sweden and Norway.	Gold	Crown.....	.26,8	Gold—10 and 20 crowns.
Switzerland	Gold and silver..	Franc.....	.19,3	Gold—5, 10, 20, 50, and 100 francs; silver—5 francs.
Turkey	Gold	Piaster.....	.04,4	Gold—25, 50, 100, 200, and 500 piasters.
Uruguay	Gold	Peso.....	1.03,4	Gold—peso: silver—peso and divisions.
Venezuela.....	Gold and silver..	Bolivar.....	.19,3	Gold—5, 10, 20, 50, and 100 bolivars; silver—5 bolivars.

* In 1874 and 1875, the gold standard prevailed.

† The gold standard was adopted October 1, 1892. (See CONSULAR REPORTS No. 147, p. 623.) Values are still, however, frequently expressed in the florin or gulden, which is worth 2 crowns or 40.6 cents.

‡ Gold standard adopted October 1, 1897. (See CONSULAR REPORTS No. 201, p. 259.)

§ See note to table of fluctuating currencies.

‖ For an account of the adoption of the gold standard, see Review of the World's Commerce, 1896-97, p. 254.

B.—*Countries with fluctuating currencies, 1874–1890.*

Countries.	Standard.	Monetary unit.	Value in terms of the United States gold dollar on January 1—					
			1874.	1875.	1878.	1880.	1883.	1884.
Austria-Hungary*.	Silver.....	Florin.....	$0.47,6	$0.45,3	$0.45,3	$0.41,3	$0.40,1	$0.39,8
Bolivia.....	.....do.....	Dollar until 1890; boliviano thereafter.	.96,5	.96,5	.96,5	.83,6	.81,2	.80,6
Central America....	.....do.....	Peso.....	.96,5	.91,8	.91,8	.83,6	.....	.....
China.....	Silver.....	Haikwan tael..	1.61	1.61	.....	.....	.....	.....
Colombia.....	.....do.....	Peso.....	.96,5	.96,5	.96,5	.83,6	.81,2	.80,6
Ecuador.....	.....do.....	.....do.....	.96,5	.91,8	.91,8	.83,6	.81,2	.80,6
Egypt†.....	Gold.....	Pound (100 piasters).	.....	.....	4.97,4	4.97,4	4.90	4.90
India.....	Silver.....	Rupee.....	.45,8	.43,6	.43,6	.39,7	.38,6	.38,3
Japan.....	Gold.....	Yen.....	.99,7	.99,7	.99,7	.99,7	.....	.....
	Silver.....		.....	.....	.....	.....	.87,6	.86,9
Mexico.....	.....do.....	Dollar.....	1.04,7½	.99,8	.99,8	.90,9	.88,2	.87,5
Netherlands‡.....	Gold and Silver.	Florin.....	.40,5	.38,5	.38,5	.40,2	.....	.....
Peru.....	Silver.....	Sol.....	.92,5	.91,8	.91,8	.83,6	.81,2	.80,6
Russia.....	.....do.....	Ruble.....	.77,17	.73,4	.73,4	.66,9	.65	.64,5
Tripoli.....	.....do.....	Mahbub of 20 piasters.	.87,09	.82,9	.82,9	.74,8	.73,3	.72,7

Countries.	Standard.	Monetary unit.	Value in terms of the United States gold dollar on January 1—					
			1885.	1886.	1887.	1888.	1889.	1890.
Austria-Hungary*.	Silver.....	Florin.....	$0.39,3	$0.37,1	$0.35,9	$0.34,5	$0.33,6	$0.42
Bolivia.....	.....do.....	Dollar until 1880; boliviano thereafter.	.79,5	.75,1	.72,7	.69,9	.68	.85
Central America....	.....do.....	Peso.....	.....	.....	.....	.69,9	.68	.85
Colombia.....	.....do.....	.....do.....	.79,5	.75,1	.72,7	.69,9	.68	.85
Ecuador.....	.....do.....	.....do.....	.79,5	.75,1	.72,7	.69,9	.68	.85
Egypt†.....	Gold.....	Pound (100 piasters).	4.90	4.90	4.94,3	4.94,3	4.94,3	4.94,3
India.....	Silver.....	Rupee.....	.37,8	.35,7	.34,6	.32,2	.32,3	.40,4
Japan.....	Gold.....	Yen.....	.....	.....	.99,7	.99,7	.99,7	.99,7
	Silver.....		.85,8	.81	.78,4	.75,3	.73,4	.91,7
Mexico.....	.....do.....	Dollar.....	.86,4	.81,6	.79	.75,9	.73,9	.92,3
Peru.....	Silver.....	Sol.....	.79,5	.75,1	.72,7	.69,9	.68	.85
Russia.....	.....do.....	Ruble.....	.63,6	.60,1	.58,2	.55,9	.54,4	.68
Tripoli.....	.....do.....	Mahbub of 20 piasters.	.71,7	.67,7	.65,6	.63	.61,4	.76,7

*The silver standard prevailed in Austria-Hungary up to 1892. The law of August 2 of that year (see CONSULAR REPORTS No. 147, p. 623) established the gold standard.

†The Egyptian pound became fixed in value at $4.94,3 in 1887.

‡The Netherlands florin fluctuated up to the year 1880, when it became fixed at 40.2 cents.

C.—*Quarterly valuations of fluctuating currencies.*

Countries.	Monetary unit.	1897.				1898.			
		Jan. 1.	April 1.	July 1.	Oct. 1.	Jan. 1.	April 1.	July 1.	Oct. 1.
Bolivia	Silver boliviano.	$0.47,4	$0.46,8	$0.44,3	$0.41,2	$0.42,4	$0.40,9	$0.41,8	$0.43,6
Central America.	Silver peso	.47,4	.46,5	.44,3	.41,2	.41,4	.40,9	.41,8	.43,6
China	Amoy tael	.76,7	.75,7	.71,7	.66,4	.68,5	.66,2	.67,6	.70,6
	Canton tael	.76,5	.75,5	.71,5	.66,4	.68,3	.66	.67,4	.70,4
	Chefoo tael	.73,3	.72,4	.68,6	.63,7	.65,5	.63,3	.64,6	.67,5
	Chinkiang tael	.74,9	.73,9	.70	.65,1	.66,9	.64,6	.66	.69
	Fuchau tael	.70,9	.70	.66,3	.61,6	.63,4	.61,2	.62,5	.65,3
	Haikwan tael	.78	.77	.73,1	.67,8	.69,7	.67,3	.68,8	.71,8
	Hankau tael	.71,7	.70,8	.67,1	.62,3	.64,1	.61,9	.63,2	.66
	Ningpo tael	.73,7	.72,8	.68,9	.64	.64,3	.63	.65	.67,9
	Niuchwang tael.	.71,9	.71	.67,2	.62,5	.65,9	.62	.63,4	.66,2
	Shanghai tael	.70	.69,1	.65,5	.60,8	.62,6	.60,4	.61,7	.64,5
	Swatow tael	.70,8	.69,9	.66,2	.61,5	.63,3	.61,1	.62,4	.65,2
	Takao tael	.77,2	.76,2	.72,2	.67	.66	.66,6	.68	.71
	Tientsin tael	.74,3	.73,4	.69,5	.64,6	.66,4	.64,1	.65,5	.68,4
Colombia	Silver peso	.47,4	.46,8	.44,3	.41,2	.42,4	.40,9	.41,8	.43,6
Ecuador	do	.47,4	.46,8	.44,3	.41,2	.42,4	.40,9	.41,8	.43,6
India*	Silver rupee	.22,5	.22,2	.21,1	.19,6	.20,1	.19,1	.19,9	.20,7
Japan	Silver yen	.51,1	.50,5						
Mexico	Silver dollar	.51,5	.50,8	.48,2	.44,6	.46	.44,4	.45,4	.47,4
Persia	Silver kran	.08,7	.08,6	.08,2	.07,6	.07,8	.07,5	.07,7	.08
Peru	Silver sol	.47,4	.46,8	.44,3	.41,2	.42,4	.40,9	.41,8	.43,6
Russia	Silver ruble	.37,9	.37,4						

Countries.	Monetary unit.	1899.				1900.			
		Jan. 1.	April 1.	July 1.	Oct. 1.	Jan. 1.	April 1.	July 1.	Oct. 1.
Bolivia	Silver boliviano.	$0.43,9	$0.43,4	$0.44,3	$0.43,6	$0.42,7	$0.43,6	$0.43,8	$0.45,1
Central America.	Silver peso	.43,9	.43,4	.44,3	.43,6	.42,7	.43,6	.43,8	.45,1
China	Amoy tael	.71	.70,2	.71,6	.70,5	.69,1	.70,5	.70,9	.72,9
	Canton tael	.70,8	.70	.71,1	.70,3	.68,9	.70,3	.70,7	.72,7
	Chefoo tael	.67,9	.67,2	.68,4	.67,4	.66,1	.67,4	.67,8	.69,7
	Chinkiang tael	.69,3	.68,6	.69,9	.68,9	.67,5	.68,8	.69,3	.71,2
	Fuchau tael	.65,6	.65	.66,2	.65,2	.64	.65,2	.65,6	.67,4
	Haikwan tael	.72,2	.71,4	.72,8	.71,8	.70,3	.71,7	.72,1	.74,2
	Hankau tael	.66,4	.65,7	.67	.66	.64,7	.65,9	.66,3	.68,2
	Ningpo tael	.68,2	.67,5	.68,8	.67,8	.66,5	.67,7	.68,2	.70,1
	Niuchwang tael.	.66,5	.65,9	.67,1	.66,1	.64,8	.66,1	.66,5	.68,4
	Shanghai tael	.64,8	.64,1	.65,4	.64,4	.63,1	.64,4	.64,8	.66,6
	Swatow tael	.65,5	.64,9	.66,1	.65,1	.63,9	.65,1	.65,5	.67,4
	Takao tael	.71,4	.70,7	.72	.71	.69,6	.70,9	.71,4	.73,4
	Tientsin tael	.68,8	.68	.69,4	.68,3	.67	.68,3	.68,7	.70,7
Colombia	Silver peso	.43,9	.43,4	.44,3	.43,6	.42,7	.43,6	.43,8	.45,1
Ecuador	do	.43,9	.43,4	.44,3	.43,6	.42,7	.43,6	.43,8	.45,1
India*	Silver rupee	.20,8	.20,6	.21	.20,7	.20,3	.20,7	.20,8	.32,4
Mexico	Silver dollar	.47,7	.47,2	.48,1	.47,4	.46,4	.47,3	.47,6	.49,0
Persia	Silver kran	.08,1	.08	.08,2	.08	.07,9	.08	.08,1	.08,3
Peru	Silver sol	.43,9	.43,4	.44,3	.43,6	.42,7	.43,6	.43,8	.48,7

*The commercial value of the rupee to be determined by consular certificate.

FOREIGN WEIGHTS AND MEASURES.

The following table embraces only such weights and measures as are given from time to time in CONSULAR REPORTS and in Commercial Relations:

Foreign weights and measures, with American equivalents.

Denominations.	Where used.	American equivalents.
Almude	Portugal	4.422 gallons.
Ardeb	Egypt	7.6907 bushels.
Are	Metric	0.02471 acre.
Arobe	Paraguay	25 pounds.
Arratel or libra	Portugal	1.011 pounds.
Arroba (dry)	Argentine Republic	25.3175 pounds.
Do	Brazil	32.38 pounds.
Do	Cuba	25.3664 pounds.
Do	Portugal	32.38 pounds.
Do	Spain	25.36 pounds.
Do	Venezuela	25.4024 pounds
Arroba (liquid)	Cuba, Spain, and Venezuela	4.263 gallons.
Arshine	Russia	28 inches.
Arshine (square)	do	5.44 square feet.
Artel	Morocco	1.12 pounds.
Baril	Argentine Republic and Mexico	20.0787 gallons.
Barrel	Malta (customs)	11.4 gallons.
Do	Spain (raisins)	100 pounds.
Berkovets	Russia	361.12 pounds.
Bongkal	India	832 grains.
Bouw	Sumatra	7,096.5 square meters.
Bu	Japan	0.1 inch.
Butt (wine)	Spain	140 gallons.
Caffiso	Malta	5.4 gallons.
Candy	India (Bombay)	529 pounds.
Do	India (Madras)	500 pounds.
Cantar	Morocco	113 pounds.
Do	Syria (Damascus)	575 pounds.
Do	Turkey	124.7036 pounds.
Cantaro (cantar)	Malta	175 pounds.
Carga	Mexico and Salvador	300 pounds.
Catty	China	1.333⅓ (1⅓) pounds.
Do*	Japan	1.31 pounds.
Do	Java, Siam, and Malacca	1.35 pounds.
Do	Sumatra	2.12 pounds.
Centaro	Central America	4.2631 gallons.
Centner	Bremen and Brunswick	117.5 pounds.
Do	Darmstadt	110.24 pounds.
Do	Denmark and Norway	110.11 pounds.
Do	Nuremberg	112.43 pounds.
Do	Prussia	113.44 pounds.
Do	Sweden	93.7 pounds.
Do	Vienna	123.5 pounds.
Do	Zollverein	110.24 pounds.
Do	Double or metric	220.46 pounds.
Chih	China	14 inches.

*More frequently called "kin." Among merchants in the treaty ports it equals 1.33⅓ pounds avoirdupois.

Foreign weights and measures, with American equivalents—Continued.

Denominations.	Where used.	American equivalents.
Coyan	Sarawak	3,098 pounds.
Do	Siam (Koyan)	2,667 pounds.
Cuadra	Argentine Republic	4.2 acres.
Do	Paraguay	78.9 yards.
Do	Paraguay (square)	8.077 square feet.
Do	Uruguay	Nearly 2 acres.
Cubic meter	Metric	35.3 cubic feet.
Cwt. (hundredweight)	British	112 pounds.
Dessiatine	Russia	2.6997 acres.
Do	Spain	1.599 bushels.
Drachme	Greece	Half ounce.
Egyptian weights and measures	(*See* CONSULAR REPORTS No. 144.)	
Fanega (dry)	Central America	1.5745 bushels.
Do	Chile	2.575 bushels.
Do	Cuba	1.599 bushels.
Do	Mexico	1.54728 bushels.
Do	Morocco	Strike fanega, 70 lbs.; full fanega, 118 lbs.
Do	Uruguay (double)	7.776 bushels.
Do	Uruguay (single)	3.888 bushels.
Do	Venezuela	1.599 bushels.
Fanega (liquid)	Spain	16 gallons.
Feddan	Egypt	1.03 acres.
Frail (raisins)	Spain	50 pounds.
Frasco	Argentine Republic	2.5096 quarts.
Do	Mexico	2.5 quarts.
Frasila	Zanzibar	35 pounds.
Fuder	Luxemburg	264.17 gallons.
Garnice	Russian Poland	0.88 gallon.
Gram	Metric	15.432 grains.
Hectare	do	2.471 acres.
Hectoliter:		
Dry	do	2.838 bushels.
Liquid	do	26.417 gallons.
Joch	Austria-Hungary	1.422 acres.
Ken	Japan	6 feet.
Kilogram (kilo)	Metric	2.2046 pounds.
Kilometer	do	0.621376 mile.
Klafter	Russia	216 cubic feet.
Koku	Japan	4.9629 bushels.
Korree	Russia	3.5 bushels.
Kwan	Japan	8.28 pounds.
Last	Belgium and Holland	85.134 bushels.
Do	England (dry malt)	82.52 bushels.
Do	Germany	2 metric tons (4,480 pounds).
Do	Prussia	112.29 bushels.
Do	Russian Poland	113⅜ bushels.
Do	Spain (salt)	4,760 pounds.
League (land)	Paraguay	4,633 acres.
Li	China	1,115 feet.
Libra (pound)	Castilian	7,100 grains (troy).
Do	Argentine Republic	1.0127 pounds.
Do	Central America	1.043 pounds.
Do	Chile	1.014 pounds.
Do	Cuba	1.0161 pounds.
Do	Mexico	1.01465 pounds.
Do	Peru	1.0143 pounds.
Do	Portugal	1.011 pounds.
Do	Uruguay	1.0143 pounds.
Do	Venezuela	1.0161 pounds.
Liter	Metric	1.0567 quarts.

Foreign weights and measures, with American equivalents—Continued.

Denominations.	Where used.	American equivalents.
Livre (pound)	Greece	1.1 pounds.
Do	Guiana	1.0791 pounds.
Load	England (timber)	Square, 50 cubic feet; unhewn, 40 cubic feet; inch planks, 600 superficial feet.
Manzana	Costa Rica	1¾ acres.
Do	Nicaragua and Salvador	1.727 acres.
Marc	Bolivia	0.507 pound.
Maund	India	82⅔ pounds.
Meter	Metric	39.37 inches.
Mil	Denmark	4.68 miles.
Do	Denmark (geographical)	4.61 miles.
Milla	Nicaragua and Honduras	1.1493 miles.
Morgen	Prussia	0.63 acre.
Oke	Egypt	2.7225 pounds.
Do	Greece	2.84 pounds.
Do	Hungary	3.0817 pounds.
Do	Turkey	2.85418 pounds.
Do	Hungary and Wallachia	2.5 pints.
Pic	Egypt	21¼ inches.
Picul	Borneo and Celebes	135.64 pounds.
Do	China, Japan, and Sumatra	133⅓ pounds.
Do	Java	135.1 pounds.
Do	Philippine Islands (hemp)	139.45 pounds.
Do	Philippine Islands (sugar)	140 pounds.
Pie	Argentine Republic	0.9478 foot.
Do	Castile	0.91407 foot.
Pik	Turkey	27.9 inches.
Pood	Russia	36.112 pounds.
Pund (pound)	Denmark and Sweden	1.102 pounds.
Quarter	Great Britain	8.252 bushels.
Do	London (coal)	36 bushels.
Quintal	Argentine Republic	101.42 pounds.
Do	Brazil	130.06 pounds.
Do	Castile, Chile, Mexico, and Peru	101.61 pounds.
Do	Greece	123.2 pounds.
Do	Newfoundland (fish)	112 pounds.
Do	Paraguay	100 pounds.
Do	Syria	125 pounds.
Do	Metric	220.46 pounds.
Rottle	Palestine	6 pounds.
Do	Syria	5¼ pounds.
Sagen	Russia	7 feet.
Salm	Malta	490 pounds.
Se	Japan	0.02451 acres.
Seer	India	1 pound 13 ounces.
Shaku	Japan	11.9305 inches.
Sho	do	1.6 quarts.
Standard (St. Petersburg)	Lumber measure	165 cubic feet.
Stone	British	14 pounds.
Suerte	Uruguay	2,700 cuadras (see cuadra).
Sun	Japan	1.193 inches.
Tael	Cochin China	590.75 grains (troy).
Tan	Japan	0.25 acre.
To	do	2 pecks.
Ton	Space measure	40 cubic feet.
Tonde (cereals)	Denmark	3.94783 bushels.
Tondeland	do	1.36 acres.
Tsubo	Japan	6 feet square.
Tsun	China	1.41 inches.

Foreign weights and measures, with American equivalents—Continued.

Denominations.	Where used.	American equivalents.
Tunna	Sweden	4.5 bushels.
Tunnland	....do	1.22 acres.
Vara	Argentine Republic	34.1208 inches.
Do	Castile	0.914117 yard.
Do	Central America	32.87 inches.
Do	Chile and Peru	33.367 inches.
Do	Cuba	33.384 inches.
Do	Curaçao	33.375 inches.
Do	Mexico	33 inches.
Do	Paraguay	34 inches.
Do	Venezuela	33.384 inches.
Vedro	Russia	2.707 gallons.
Vergees	Isle of Jersey	71.1 square rods.
Verst	Russia	0.663 mile.
Vlocka	Russian Poland	41.98 acres.

METRIC WEIGHTS AND MEASURES.

Metric weights.

Milligram ($\frac{1}{1000}$ gram) equals 0.0154 grain.
Centigram ($\frac{1}{100}$ gram) equals 0.1543 grain.
Decigram ($\frac{1}{10}$ gram) equals 1.5432 grains.
Gram equals 15.432 grains.
Decagram (10 grams) equals 0.3527 ounce.
Hectogram (100 grams) equals 3.5274 ounces.
Kilogram (1,000 grams) equals 2.2046 pounds.
Myriagram (10,000 grams) equals 22.046 pounds.
Quintal (100,000 grams) equals 220.46 pounds.
Millier or tonnea—ton (1,000,000 grams) equals 2,204.6 pounds.

Metric dry measures.

Milliliter ($\frac{1}{1000}$ liter) equals 0.061 cubic inch.
Centiliter ($\frac{1}{100}$ liter) equals 0.6102 cubic inch.
Deciliter ($\frac{1}{10}$ liter) equals 6.1022 cubic inches.
Liter equals 0.908 quart.
Decaliter (10 liters) equals 9.08 quarts.
Hectoliter (100 liters) equals 2.838 bushels.
Kiloliter (1,000 liters) equals 1.308 cubic yards.

Metric liquid measures.

Milliliter ($\frac{1}{1000}$ liter) equals 0.0388 fluid ounce.
Centiliter ($\frac{1}{100}$ liter) equals 0.338 fluid ounce.
Deciliter ($\frac{1}{10}$ liter) equals 0.845 gill.
Liter equals 1.0567 quarts.
Decaliter (10 liters) equals 2.6418 gallons.
Hectoliter (100 liters) equals 26.417 gallons.
Kiloliter (1,000 liters) equals 264.18 gallons.

Metric measures of length.

Millimeter ($\frac{1}{1000}$ meter) equals 0.0394 inch.
Centimeter ($\frac{1}{100}$ meter) equals 0.3937 inch.
Decimeter ($\frac{1}{10}$ meter) equals 3.937 inches.
Meter equals 39.37 inches.

Decameter (10 meters) equals 393.7 inches.
Hectometer (100 meters) equals 328 feet 1 inch.
Kilometer (1,000 meters) equals 0.62137 mile (3,280 feet 10 inches).
Myriameter (10,000 meters) equals 6.2137 miles.

Metric surface measures.

Centare (1 square meter) equals 1,550 square inches.
Are (100 square meters) equals 119.6 square yards.
Hectare (10,000 square meters) equals 2.471 acres.

CONSULAR REPORTS.

COMMERCE, MANUFACTURES, ETC.

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KNITTING INDUSTRY IN LATIN AMERICA.

At the instance of the editor of a Philadelphia trade journal* (who referred to the interest aroused by the consular reports on the manufacture of knit goods in Europe,† and stated that there was a desire among American manufacturers to learn the condition of the industry in Latin America), a Department instruction, dated November 11, 1899, requesting this information was sent to consular officers. The answers follow.

MEXICO.

Consul-General Barlow writes from Mexico City, January 12, 1900:

The chief companies engaged in the manufacture of knit goods in this city are the Phœnix (Chanaut & Co.) and the Iron Palace (Levy & Martin). They make hosiery and underwear, exclusively of cotton. I can not state the number of knitting machines in use, but am advised that they come from Pennsylvania.

Makers are not willing to quote the value of the output, beyond saying that the retail price charged for the goods is as follows:

Articles.	Mexican currency.	United States currency.
Underwear.....per suit...	$2.50	$1.18
Socks.....per dozen pair...	$1.50 to 4.50	$0.71 to 2.13
Stockings.....per pair...	.25 to 1.50	.118 to .71

*To whom advance proof has been sent.

†See ADVANCE SHEETS No. 541 (September 29, 1899); CONSULAR REPORTS No. 230 (November, 1899).

Frenchmen, Spaniards, Mexicans, and a few Americans are engaged in the manufacture of these goods. The only way of enlarging the trade that I can suggest would be for some active agent who understands the language to come and see the situation and deal with the different makers.

I inclose reports from the agents at Aguas Calientes, Guadalajara, Oaxaca, Puebla, and Zacatecas.

A. M. Raphall, consular agent at Aguas Calientes, says:

Marciano Muñez is the chief manufacturer here; he makes cotton hosiery, all colors, of cheap quality. He has ten knitting machines in use, of the Branson, Philadelphia, make; two machines for underwear (not used at present for want of material) were made by the Chemnitz Strickmaschinen Fabrik. The value of the output is from $250 to $400 per month in Mexican currency ($118.25 to $189.20 gold).

Hosiery of all kinds is sold here—English, German, and French. Cheap goods find the best market. The best way to sell knitting machines is to establish agencies, as the sewing-machine companies have done.

The consular agent at Guadalajara, Mr. Light, says:

The principal manufacturers here are W. H. Beaumont, William Gaxiola, Henry Meyer, Carlota Rivas, Herierą & Cavin, C. L. Alatories, and Fabrica de Francia. The production consists of cotton hosiery.

Three hundred and fifty Branson machines, from Philadelphia, are used; eighteen Creelman (Canadian) knitting machines, ten Standard knitters, and three German knitters for drawers. There are also three German knitters for undershirts, not in use. The value of the production is about $50,000 Mexican currency ($23,650 gold) per annum.

Mr. Arthur, consular agent at Oaxaca, writes:

Pedro Vassuer is the chief manufacturer; he makes cotton hosiery exclusively and employs forty machines, made by Branson, Philadelphia.

Mr. Vassuer intends to increase his business, and will be glad to receive catalogues from machine makers.

The consular agent at Puebla, Mr. Headen, says:

The Hospicio del Gobierno, Señors Palacios, José M. Romero, Miguel Cazares, and many private families are engaged in the manufacture of hosiery and underwear, all of cotton. The machines used number approximately two hundred and fifty, all but nineteen being of United States origin. The nineteen foreign machines came from England. The output is valued at about $3,500 Mexican currency ($1,655.50 gold) per annum.

Señor Leopold Gavito, president of the city council, manufacturer of cotton cloth, capitalist, etc., is said to have introduced knitting machines into this city. Correspondence with him, with Señor Thomas Furlong, president of chamber of commerce, and with the other manufacturers named, accompanied by illustrated catalogues in Spanish, would probably stimulate trade.

Cotton and woolen underwear and hosiery are largely used. They are imported from the United States, from England, and from the continent of Europe and are sold by dry-goods stores and clothing establishments. An American commercial agent familiar with the Spanish language, understanding the market, Mexican customs regulations, and requirements for invoicing and packing would be the right man to send here to build up the trade.

The consular agent at Zacatecas, Mr. Von Gehren, says:

The chief manufactories are the orphan asylum Guadalupe de Zacatecas and Antonio R. Castellanos. They make cotton hosiery and employ six machines, all of United States manufacture. The best, and perhaps only, means of procuring a share of the business in this line, I think, would be for the makers of knitting machines to send intelligent representatives to this section, in order to establish a knitting industry on their own account or to find parties who would make the experiment. It would be necessary to furnish expert operators, with the object of instructing the native laborers. As this industry does not require large capital, I do not think it improbable that some established dry-goods firms might be induced to invest in a number of machines, if the above conditions could be fulfilled.

Consul Mills writes from Chihuahua, December 6, 1899:

There is only one manufactory of knit goods in this district, and that is so distant from my post of duty that I am not able to give any information about it, except that it is very small and the output inconsiderable.

Should the manufacture of knit goods be started here, I think United States machinery would be used in preference to that of other countries, prices and quality being equal.

There are manufactories of woolen and cotton goods in the district. Raw material and cheap labor are here, and I believe the proposed industry would prosper.

Consul Kaiser sends the following from Mazatlan, December 20, 1899:

The only manufactory of knit goods in this district is located at Villa Union, about 25 miles from this place, owned by Francisco Echegneren Brothers and Nephews, one of the wealthiest firms in Mexico. The managers manufacture only cotton goods for men, women, and children. They use fifteen knitting machines, all made in Philadelphia by the Branson Machine Company; also one 10-horsepower engine, three automatic ribbers for top of socks, three patent single-stitch looping machines, one machine for hemming stockings, one upright winder (twenty-four ends), one steam hosiery press, one yarn reel (forty-five ends), one twisting machine (six ends), two copper-lined dye vats, and two water vats—all of United States make. The machinery has given entire satisfaction.

The annual output of the factory is worth $10,000.

There is very little, if any, American knit goods in this market; most of these articles are imported from Germany and England, and consist of cotton or silk.

The best means for the enlargement of the knit-goods trade would be to send an active agent or to forward samples to the best firms here; the former plan would, I think, be more successful. German and English hosiery is sold here very cheaply, and our goods would find a market only through superiority.

United States manufacturers should give this district a trial, as Mazatlan is rapidly improving and is now the second city of export in Mexico; importations at this port amount to over forty millions annually, of which hardly 30 per cent comes from the United States.

I would be pleased to render any service required, in order to increase the importation of American goods into my district.

HONDURAS.

Consul Johnston writes from Utilla, December 16, 1899, that, so far as he can learn, there is no industry of the kind mentioned in his district.

NICARAGUA.

Consul Donaldson, of Managua, under date of January 2, 1900, reports that there are no knit goods manufactured and no machinery of that kind used in Nicaragua.

SALVADOR.

Consul Jenkins writes from San Salvador, January 9, 1900:

Salvador has no manufacture of hosiery of any description, depending entirely on importation for its needs, which are limited to the well-to-do classes.

Salvador's population is mainly employed in agricultural pursuits. Many employ no foot wear of any description; others use a sort of a sandal, without stockings. It can not be said that Salvador offers any inducement for the establishment of a knitting industry.

ARGENTINE REPUBLIC.

The following has been received from Consul Mayer, dated Buenos Ayres, March 22, 1900:

All kinds of hosiery and knit goods are manufactured in Buenos Ayres. There are two hundred knitting machines employed, twenty of which are of United States manufacture and the balance of German origin. Most of the material used comes from Italy. No statistics about this industry are published, and manufacturers refuse to give any information whatever. Our machines being superior to those made in Germany, I suggest that exporters send someone here or appoint an agent to look after their interests, in which case one or more sample machines should be sent for inspection and exhibit. In this way, liberal orders may be secured. The capital invested by the different manufacturers of hosiery in this city exceeds $4,000,000 gold.

BRAZIL.

Consul Furniss writes from Bahia, January 12, 1900:

There is no knitting industry whatever in this district. I can not find that there are any knitting machines here, except the one or two at the cotton factories used to knit cords for the looms.

At present, all knit goods are imported from England, France, and Germany; the better grades of woolen coming from England and the

better grades of cotton from France, while only the cheaper varieties come from Germany.

The reason our manufacturers do not have any of the trade is because they do not try for it, or, trying, they refuse to give the credits which are necessary to do business in this market.

Vice-Consul Krause, of Pernambuco, under date of February 28, 1900, says:

The chief companies in this district are: Fabrica de Tecidos de Malha, Varzea, Pernambuco; Companhia Progresso Alogoans, Maceio, Alagoas; and Companhia Pilarense de Fiação e Tecidos Alagoas. They all manufacture hosiery and underwear—white, black, and colored—cotton only.

The Fabrica de Tecidos de Malha has seventy machines of British manufacture in use. I can obtain no details in regard to the other two companies, except that the machines are of British make.

The value of the production of knit goods of the Fabrica de Tecidos de Malha is from $3,000 to $4,500 per month.

At present, United States manufacturers have no share in the trade in knitting machines and knit goods here. The best means to enlarge our traffic in these lines would be to send a well-qualified man to introduce American machinery.

Acting Consul Lawrence, of Santos, March 1, 1900, reports that no knit goods, as far as he can learn, are manufactured in that consular district.

CHILE.

Consul Greene writes from Antofagasta, March, 5, 1900:

There are no companies and few individuals here employed in this industry.

The value of knitted goods imported in 1898 was about $370 in United States gold, nearly all coming from Germany and none from the United States. Jobbers get their principal supply from Valparaiso, and the value is not known here.

United States shippers would find it to their advantage to deal with William R. Grace and Beeche & Co., of New York, or, if willing to incur the cost, could pool together and send a competent agent to investigate the outlook in this consular district, and more particularly the section of Bolivia connected with this port. It is possible a considerable market might be found there; but the agent must know Spanish thoroughly and have good address.

Little raw material for knitted goods is produced here. The women living in the oasis of San Pedro de Atacama and others in the southeast part of the province produce yearly about $1,000 worth of coarse woolen goods for home use.

PARAGUAY.

Consul Ruffin reports from Asuncion, March 1, 1900:

There is really no knitting industry here. All of the knitted work is made by hand and called yandu-ti, or lace. This is made in almost every house, and children are taught in the schools how to manufacture it. In one town, called Staguá, lace making is the exclusive occupation of the female population. There is, however, no factory of lace.

Knit undershirts are widely used in summer.

Up to the present time, the United States has given no attention to this trade; no articles of our manufacture have been seen on the market.

I am of the opinion that the knitting industry could not flourish here, and the trade is too small to command attention.

URUGUAY.

The following has been received from Consul Swalm, of Montevideo, dated January 15, 1900:

The knitting industry does not appear of commercial moment at the present time, in either cotton or woolen lines. While Uruguay is a great wool producer, it has no woolen mills or yarn-making establishments of importance. Some knitting has been done with imported yarn, but solely in a domestic way. All knit underwear is imported, and the share falling to the United States is very small. In 1896, the customs valuation of the imports from our country was $1,369 (this being an experimental order); in 1897, it fell to $490; in 1898, to $441; and there was no increase in 1899. The origin of imports is found in the following statistics (from official sources) for 1898, this year being a fair average. The statement covers all kinds of knit underwear, sweaters, foot wear for both sexes, of wool, cotton, silk, and mixtures. The values are those fixed by the customs, and are on the Uruguayan basis.

Germany	$160,292
France	51,386
England	59,588

Importers tell me that the low price of the German goods, especially of cotton foot wear, has won the market, the importations in the line specified being $125,850. It should be said that the German manufacturer has studied the wants of the market and met them in all possible ways, especially in price.

In my opinion, there is at present no promising market in Uruguay for United States knitting machinery or knit goods. The duties are 42½ per cent on a varying valuation. It may seem strange that such a great wool-producing country—exporting 75,000 to 80,000 bales of wool of 1,000 pounds each a year—should not manufacture to supply its own needs; but perhaps the high price of fuel, all of which is imported from Wales or the United States and costs an average of $9 per ton in front of the boiler, may account for this condition.

VENEZUELA.

Consul Plumacher writes from Maracaibo, January 5, 1900, that no knitting industry exists in any of the States belonging to his consular district.

Consul Ellsworth, of Puerto Cabello, January 26, 1900, reports:

Knitting machines have not as yet been introduced into this consular district of Venezuela. French, German, and Spanish knit goods are sold to a limited extent by the following firms in Puerto Cabello:

Wholesale.—Ascher & Co., Leseur, Romer & Baasch, Blohm & Co., Braschi & Sons.

Retail.—Louis Gonzalez & Co. and Brandy & Co.

THE MANAVI, OR PANAMA, HAT.

Ecuador can with justice claim preeminence in the production of cacao and the manufacture of straw hats and hammocks. Her cacao crop represents about one-third of the world's supply; her hammocks, made in the coast provinces, notably those of Manavi, can not be excelled by any made elsewhere; while her straw hats are the finest in the world.

HISTORY OF THE INDUSTRY.

The Manavi (Panama) hat was first made in the province of Manavi, Ecuador, about two hundred and seventy-five years ago, by a native named Francisco Delgado. The present centers of the industry are Monte-Cristi and Jipijapa, in the province of Manavi,

and Santa Elena and Cuenca, in the provinces of Guayas and Azuay, respectively. They came to be known as Panama hats years ago, when that city was a distributing center. In Ecuador, Colombia, and Central America, the hat is known by the natives as the "Jipijapa" (pronounced hipy-hapa), but as they are made elsewhere in Ecuador, principally in the province of Manavi (mahn-ah-vee), and as the name is easy to pronounce, it seems to me it might take the place of the present misleading appellation.

CULTIVATION OF THE PLANT.

This is a native grass or species of cane. It is cultivated in the provinces of Manavi and Guayas and is known as "paja toquilla." In appearance, it resembles very much our saw palmetto; it is fan-like in shape.

Low-lying wet land is selected and the seed planted in rows during the rainy season. When the grass attains a height of 4½ to 5 feet, it is cut just before ripening, boiled in hot water, and, after being thoroughly sun dried, is assorted and ready for use.

PROCESS OF MANUFACTURE.

The straw is first carefully selected, dampened to make it pliable, and then very finely divided into requisite widths, the little finger or thumb nail being used for the purpose. The plaiting commences at the apex of the crown and is continued in circular form until the hat is finished. The work is carried on while the atmosphere is humid, from about midnight to 7 a. m. If the strand breaks, it can be replaced and so plaited as not to affect the work or be visible to the naked eye. It requires from three to five months' daily labor of three hours per day to make one of the finest hats. The business in its highest development is really an art, requiring patience, fine sight, and special skill—qualifications few of the natives possess. The plaiting completed, the hat is washed in clean, cold water, coated with a thin solution of gum, and polished with dry, powdered sulphur. They are so pliable that they can be rolled up without injury and put in one's pocket; they will last for years and can be repeatedly cleaned.

Natives of both sexes and all ages are engaged in this work at odd times, the business being a side issue. Children make from raw, undressed straw about two of the common hats per day.

PRICES.

The Cuenca hat wholesales at from 18 to 60 sucres ($7.92 to $26.40) per dozen; finest, at 12 to 15 sucres ($5.28 to $6.60) each; the Manavi hat brings 3 to 50 sucres ($1.32 to $22) per dozen; finer hats, 10 to 40 sucres ($4.40 to $17.60) each; fancy hats, 50 to 100 sucres ($22 to $44) and more each.

MARKETS AND CONDITION OF THE INDUSTRY.

The principal markets for hats are Cuba and Central America, nearly all for the United States being sent in transit for Cuba. The exportations have been as follows:

Year.	Hats.		Paja toquilla (raw straw).	
	*Sucres.**		*Sucres.**	
1897	317,172	$139,293	19,142	$8,613
1898	158,167	66,746	34,597	14,600
1899	228,281	100,443	40,907	18,009

* The United States Treasury valuation of the sucre in 1897 averaged 45 cents; in 1898, 42.2 cents; in 1899, 44 cents.

Exportations for 1899 by countries.

Whither exported.	Value.	
Hats.	*Sucres.*	
Cuba	93,227	$41,019
United States (nearly all in transit for Cuba)	88,722	39,477
Costa Rica	9,626	4,235
Colombia	5,302	2,332
Mexico	4,760	2,090
All others	26,644	11,723
Total	228,281	100,876
Straw.		
Peru	28,734	12,642
Germany	5,743	2,526
France	5,230	2,301
Belgium	1,200	528
Total	40,907	17,997

Peru has been taking a large quantity of the straw from which she manufactures hats, competing sharply with Ecuador and causing a decline in the industry; but the export duty imposed by the last Congress is reviving the business, exports in 1899 being 70,000 sucres more than in 1898. Since the Germans, with characteristic enterprise, have been running a line of steamers from Hamburg to San Francisco, some shipments are going to that city.

CONCLUSION.

The finest hats ever made were by a native named Palma, and were exhibited at the Paris exposition when Napoleon III was Emperor. The two best were bought by a French gentleman for 1,000 francs ($193) and presented to the Emperor and Marshal MacMahon. Palma is now dead, but there are two or three others who possess equal skill.

Monotony in shape has been perhaps one of the chief causes why the hats have not been more popular, but if dealers would take up

the matter the natives could easily make any style desired. Ladies' hats may be worn a number of successive seasons; cleaned and retrimmed, they appear perfectly new.

The principal exporters in this city are Messrs. Norverto Osa & Co. and Manuel Orrantia & Son, both houses of excellent repute. Considering durability, they are the cheapest straw hats in the world; their beauty and comfort should bring them into general use.

I am indebted to Consular Agent P. A. Moreira, of Manta, for the data contained in this article.

PERRY M. DE LEON,
Consul-General.

GUAYAQUIL, *July 18, 1900.*

HATS IN MEXICO.

In reply to inquiries from a New York firm,* Consul Snyder writes from Ciudad Porfirio Diaz, August 14, 1900:

There are no merchants here who deal in hats exclusively, but nearly all merchants of any standing carry a line of hats in connection with other goods. The hats mostly used are the soft Alpine hats of different classes and colors. Dunlap hats have a small sale, and Stetson also, especially the broad-brim, light-colored felt Stetsons. The latter sell especially well in summer; but, generally speaking, the hat mostly in demand is a broad black or brown Alpine, of a medium quality—say, $3 and $3.50.

Straw hats of a fair quality have a good sale in summer too, and caps are worn in winter.

Most of the hats are bought in Chicago, New York, and Philadelphia. The lower classes of Mexicans wear the broad, high-crowned hat, which sells at about 40 cents Mexican, but the better classes use the American styles altogether.

The duty on hats imported into Mexico is $1 Mexican† each, regardless of the cost or quality of the hat. As this place is in the free zone the duty is only 19 per cent of the whole duty, or 19 cents each.

The principal merchants here who handle hats are E. Coblentz, Miranda Bros., José Goodman, Trevifio Hnos, and Frank B. James. The last-named merchant carries a fine line of hats and is considered to have one of the finest stores in Mexico. He is stationed at Monclova and is also commissary for the Mexican International Railroad Company.

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* Which has received a copy of the letter.

†According to the United States Treasury valuation, July 1, 1900, $1 Mexican=47.6 cents.

PORT WORKS AT MONTEVIDEO.

On July 31, 1900, in the Department of Fomento, at Montevideo, the Government received bids for the construction of the new port from the following-named parties:

(1) Walker & Co., of London and Buenos Ayres.
(2) Schneider & Co., of France.
(3) Fourgerolles, Bord & Co., of France.
(4) Société Marseillaise de France.
(5) Sir John Jackson, Limited, of England.

As the French houses of Allard-Coiseau and Convreux and the English house of Pearson & Son had delivered their propositions at the Uruguayan legation in London too late to reach here in time, all further action on the bids was postponed until August 20, 1900, when the delayed bids will have arrived. The contract is one which will involve an expenditure of not less than $12,000,000, and it is to be regretted that United States contractors did not appear in the lists. Full and complete information was filed months ago in the State Department* and with leading manufacturing associations in the United States.

ALBERT W. SWALM,
MONTEVIDEO, *August 1, 1900.* *Consul.*

PORT CHARGES IN ARGENTINA.

The following report has been made by Mr. François Jones, secretary of legation at Buenos Ayres, in answer to inquiries touching the charges and dues levied upon ocean steamships entering the ports of the Argentine Republic:

The Argentine Government has for many years past paid nothing to steamship lines for carrying its mails. Though signatory to the universal postal convention, which provides under article 4 a pro rata payment for expenses of maritime conveyance, it has held for a number of years that the packet privileges which it granted to all foreign steamship lines carrying its mails more than compensated for that service, and relieved it of any obligation of that character under the universal postal convention. The only important claim of this character that has been recently recognized by the Argentine Government was that of the French Government, on behalf of the Messageries Maritimes.

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*See ADVANCE SHEETS Nos. 428, 470, 492, 516, 532, 621, and 765; CONSULAR REPORTS Nos. 226, 228, 229, 230, 234, and 239.

These packet privileges (privilegios de paquete), briefly summarized, are as follows:

(1) Precedence over other vessels in the formality of sanitary inspection.

(2) Right to enter port without further formality than the presentation on board by the captain or agent of the vessel of two copies of the cargo's manifest.

(3) Right to unload and load cargo at all hours of the day and night and on feast days. This privilege is the most important one of all granted, as vessels not holding packet privileges are required to unload during the office hours of the custom-house, namely, 10 a. m. to 5 p. m. on working-days only.

(4) Exemption of the ship itself of all liability, which can be assumed by the agent or company without detaining vessel.

(5) The right to correct errors in the manifest for the whole period consumed in unloading, instead of forty-eight hours granted to sailing and other vessels.

(6) Exemption from custom-house inspection if leaving port in ballast and with passengers only.

(7) If the vessel with packet privilege is to continue a voyage without more cargo than that manifested, as in transit for another port, it can do so without other procedure than presenting to the inspector a statement of the cargo for his verification if he may think proper. In order to receive cargo in Argentine ports, such vessels are not required to open and close their registers, but only to carry the agent's permit.

They are not required to secure permits, pay duties, or give sworn statements of the cargo prior to departure, like sailing vessels; but the loaders and agents are personally responsible for the adjustment and payment of the duties and have fifteen days for such purpose after the departure of the steamer. Nor do they have to take out sailing papers.

The licenses for steamships having packet privileges are of two classes—those granted to steamships carrying the mails and observing regular sailing dates and those not carrying the mails and having irregular dates of departure. The former are charged $100, the latter $200, in gold per voyage.

The miscellaneous charges on these classes of steamships are the following:

	Pesos.
Seal on first page of manifest of entrance	50
Seal on subsequent pages (each)	1
Seal on consular certificate	2
Seal on provision list	1
Seal on certificate of packet privilege	1
Seal on license to paint	1

The following is the tariff for steam-tug service rendered ocean steamships in the ports of Buenos Ayres and La Plata:

Tariff charged by tugs for entrance and exit at ports of Buenos Ayres and La Plata.

Draft.	Port of La Plata, quays and warehouses of Grand dock.*	Madero port.					
		South basin.	Docks.				North basin.
			1.	2.	3.	4.	
	Pesos.†	*Pesos.*†	*Pesos.*†	*Pesos.*†	*Pesos.*†	*Pesos.*†	*Pesos.*†
Up to 19 feet	.....	130	160	190	220	250	280
Up to 20 feet	100	144	176	208	240	272	304
Up to 21 feet	.....	158	192	226	260	294	328
Up to 22 feet	113	172	208	244	280	316	352
Up to 23 feet	.....	186	224	262	300	338	376
Up to 24 feet	126	200	240	280	320	360	400
Up to 25 feet	.....	214	256	298	340	382	424
Up to 26 feet	139	228	272	316	360	404	448
Up to 28 feet	152	.....	.....	.....	.....	.....	.....
Up to 30 feet	165	.....	.....	.....	.....	.....	.....
Up to 32 feet	178	.....	.....	.....	.....	.....	.....
Up to 34 feet	191	.....	.....	.....	.....	.....	.....

Draft.	Mouth of the Riachuelo.					
	Sections 1 to 3.	Sections 4 to 6.	Sections 7 to 9.	Sections 10 to 12.	Sections 13 to 15.	Sections 16 to 18.
	Pesos.†	*Pesos.*†	*Pesos.*†	*Pesos.*†	*Pesos.*†	*Pesos.*†
Up to 19 feet	100	130	160	190	220	250
Up to 20 feet	112	144	176	208	240	272
Up to 21 feet	124	158	192	226	260	294
Up to 22 feet	136	172	208	244	280	316
Up to 23 feet	148	186	224	262	300	338
Up to 24 feet	160	200	240	280	320	360
Up to 25 feet	172	214	256	298	340	382
Up to 26 feet	184	228	272	316	360	404

* The figures given are for each trip.

† Prices in Argentine paper currency, plus half the gold premium; $2.15 Argentine paper equivalent to $1 in gold at present market quotations.

The port dues are as follows:

ENTRANCE DUES.

	Cents.
Ships from 3 to 50 tons register.....per ton...	4
Ships from 50 to 100 tons register.....do.....	5
Ships from 100 to 150 tons register.....do.....	10
Ships above 150 tons register .....do.....	15

Fractions of tons are computed as whole tons.

Ships in ballast pay half of the above.

Tugboats pay 1 cent per ton up to 100 tons; those above that tonnage pay 2 cents.

DUES FOR PERMANENCY, CLEANING, DISINFECTING, AND LIGHTING THE PORT.

Five cents for each 10 tons of register, excepting barges and tugs, which pay respectively one-half and one-fourth of this rate.

WHARFAGE DUES.

Ships tied up broadside to the wharf pay, in addition to the permanency dues above cited, 10 cents daily for each 10 tons of the register for the use of the wharf. Those tied up stern end to or by the side or alongside another vessel pay half of this charge.

Ships entering the dry docks for repairs are exempted from the above charges during the period necessary for the repairs. In all other cases the dry-dock dues are as follows:

	Gold.
For the first 50 tons of register	$50
For each subsequent 250 tons	10

OCCUPANCY DUES PER DAY AND PER TON ADDITIONAL TO THE ABOVE (IN GOLD).

Description.	First day.	Subsequent days.
On the first 500 tons	$0.18	$0.09
On 250 tons above 500 tons	.16	.08
On the next following 250 tons	.14	.07
On the 250 tons in excess of the above	.12	.06
On all tonnage above 1,250 tons	.10	.05

The Executive Power is granted the right to increase or reduce in its discretion the above tariff 25 per cent.

LIGHT-HOUSE AND BUOY DUES.

For ships from foreign ports, 7 cents gold per registered ton.

For those above 5 tons navigating in Argentine waters, 2 cents per ton.

Ships in ballast and those carrying Argentine mails for Argentine interior or coast ports pay half these dues.

HEALTH DUES.

Ships from foreign ports pay as health dues a tax of 1 cent gold per registered ton.

Ships whose port of origin was infected or that have touched at infected ports pay 3 cents per registered ton.

Ships entering in ballast and without passengers pay half the above dues.

It may be pertinent to state here that under Argentine federal law, the beach of the sea and of navigable rivers between high and low water mark is national domain. The coast of the sea and of navigable rivers from high-water mark to a distance of 35 meters (118 feet) inland is likewise public State territory. The latter, therefore, can not be acquired in fee simple, but its use for the purpose of establishing wharves and docks thereon can be readily obtained in the form of a Government concession.

CABLE SERVICE AT PERNAMBUCO.

This city now takes first rank as a cable station in South America, and has lately made material improvements in its submarine telegraphic service. It has no less than ten cable lines to various parts of the world. There were formerly three cable companies here, but recently two of them were consolidated. The present companies are the Western Telegraph Company, Limited (English), and the South American Cable Company. The first named has a very complete system and is now finishing two or three new lines to Brazilian ports. One of these is a through line to Para; another to Para, touching at local points; and still another to Rio de Janeiro. It now has distinct lines running to Para, Ceara, Rio, and Bahia; two to St. Vincent, Cape Verde Islands; and one to Europe via Lisbon, Portugal. Several of these cables are duplexed, while another line to Rio will be triplicated to Montevideo. These lines are constructed according to the latest scientific improvements, and some of them have a carrying capacity of two hundred letters a minute. The rate for messages from here to New York, via Europe, is about $1.15 per word. The Western Company has fifty people constantly employed here as an office force. The South American Cable Line touches several South American points, going thence to the Canary Islands, Cadiz, Spain, and Africa.

EDWIN N. GUNSAULUS,

PERNAMBUCO, *August 10, 1900.* *Consul.*

FINANCIAL MEASURES IN COSTA RICA.

Minister Merry writes from San José, July 15, 1900:

Commencing to-morrow, the Government of Costa Rica will attempt the gold standard on a valuation of 46.52 cents in United States gold for each "colon." Silver will no longer constitute legal tender for over $10 in one payment.

The Bank of Costa Rica has been for some time calling in its paper circulation under the denomination of $5, and substituting therefor subsidiary silver.

The standard proposed for adoption being a fraction below the present value of the Mexican silver dollar, and the balance of trade having been in favor of Costa Rica during the past year, this effort for a gold basis promises to succeed, unless the gold coin emitted is hoarded by the people or in the event of a disturbance of the public peace requiring relatively large expenditure by the Government.

There has been some friction between the chartered "Bank of Costa Rica" and the Government in arranging for this financial change of base; but, so far as publicly known at this time, arrangements are now completed for the payment of gold "colones" on demand.

The greater portion of this gold coinage is in the denomination of 10 colones having a value of $4.652 in United States gold.

YERBA-MATE CULTIVATION IN PARAGUAY.

A stock company has recently been organized here to cultivate yerba mate in Paraguay. It has a paid-up capital of $100,000 paper, or about $13,000 gold, and will start planting immediately. This is the first attempt that has been made to cultivate yerba on a large scale, as heretofore it has all been taken from the Yerbales, where it grows wild. It promises to become a paying industry, the consumption of this tea being enormous in all the River Plata countries.

The following facts have been gathered from a recent visit to the colony Nueva Germania, in the Department of San Pedro, where this work is to be carried on:

In the first place, the seeds are passed through an acid bath. This is necessary, because each kernel is surrounded by a hard shell, which must be softened in order that the seed may sprout quickly. If planted in its natural state, from three to four years pass before the plant appears above the ground, while by preparing them in this way only three or four months are required for the growth to begin.

Seeds from the male and female trees must be planted together to get good results. After eight or ten months, the plants are transplanted, and the company has to-day 2,000 ready to be moved. These will be placed in wooded land which has been partially cleared, and in four years the first crop will be ready. The mature plant is about twelve feet high, the branches touching the ground. The leaves and small twigs are cut, dried over slow fires, baled, and then marketed.

The sorting and refining is done after the arrival of the yerba in town, so that the planter requires nothing in the way of machinery, with the exception of his ovens. After the first cutting the plant must be left untouched for three years, in which time it reaches its full growth again. A plantation once well started requires comparatively little attention, as the plant is very hardy; but at the beginning great care must be taken to protect the small sprouts from the sun. This is done by placing shades of straw or strong grass over each plant on the side where the afternoon sun falls. It is better to

water the plants when they are young, but this is not absolutely necessary if there is the average amount of rain.

Yerba should always be planted in wooded land. It is claimed that by cultivation a much better article of yerba can be produced and the tea will bring a higher price. I am told that the managers expect from 20 to 30 per cent on the money invested. It is a business that is bound to increase, as the supply in the Yerbales will give out in time, while the consumption is continually increasing.

JOHN N. RUFFIN,
Consul.

ASUNCION, *June 7, 1900.*

HAITIAN EXPORT DUES ON FRUIT.

I transmit translation of a law recently passed by the Haitian Legislature, sanctioning a contract with the Railway Society of the North, at Cape Haitien, whereby the Haitian Government exempts from exportation dues for a period of twenty-five years certain tropical fruits, and also from export-tonnage dues vessels arriving here in ballast to load cargoes of such fruits.

The railway company engages to put under cultivation, for the purpose of growing bananas, the lands adjacent to its railway.

ALEXANDER BATTISTE,
Deputy Consul.

PORT AU PRINCE, *August 20, 1900.*

[Translation of law.]

ARTICLE 1. The contract made July 12, 1900, between the Secretary of State for Agriculture on the one part and the railway society on the other is and remains sanctioned in all the clauses and terms excepting the following modifications made in articles 2, 3, 4, 5, 6, and 7, which become 3, 4, 5, 6, 7, and 8:

"ARTICLE 1. The Government of Haiti, for the effective and immediate encouragement of agriculture, engages itself not to impose during twenty-five consecutive years any fiscal exportation taxes, except a statistics tax, on the so-called tropical fruits, such as bananas, pineapples, oranges, limes, cedrats, and castor-oil seeds. The statistics tax is one-half of 1 cent national currency per ten bunches of bananas, 3 cents per barrel of the other fruits above mentioned. Castor-oil seeds shall pay 3 cents per 100 pounds.

"ART. 2. Added. The present exemption constitutes neither a monopoly nor a privilege in favor of the Railway Society of the North, but is for all who may wish to cultivate or export the above-mentioned fruits."

The present law, to which shall be annexed the said contract, abrogates all the provisions of laws that are contrary thereto.

Given at the Nation House, the 30th of July, 1900, ninety-seventh year of the independence.

CONTRACT.

For the cultivation of bananas, pineapples, oranges, cedrats, limes, etc., designated under the commercial name of tropical fruits.

Between the undersigned:

The Secretary of State of the Department of Public Works and of Agriculture, duly authorized for that purpose by a deliberation of the Council of the Secretaries of State on July 10, 1900, on the one part;

And the Railway Society of the North, authorized by presidential decree of date of June 17, 1899, Moniteur of June 24 of same year, having its domicile at Cape Haitien and represented by its council of administration on the other part;

It has been agreed:

ARTICLE 1. The Government of Haiti, to give an effective and immediate encouragement to agriculture, engages itself not to impose during twenty-five consecutive years any fiscal dues for exportation, except a statistics tax, on so-called tropical fruits—bananas, pineapples, oranges, limes, and cedrats, and castor-oil seeds, etc.

ART. 2. The Railway Society of the North engages itself to cultivate the said tropical fruits, principally bananas, on the lands situated alongside of its railway, belonging either to private parties or to the State, of which it has the privilege of lease.

ART. 3. To avoid repeated handling that would cause damage to the produce, the Railway Society of the North is authorized to construct a special wharf at the railway depot near the Cape Haitien bridge.

ART. 4. The plans of this wharf shall be submitted to the approval of the Secretary of State for Public Works before being put in execution.

ART. 5. This wharf is the property of the Railway Society of the North and can not be at the service of private parties without the special authorization of the Government.

ART. 6. To permit the cultivator to obtain the best price possible for his crop of tropical fruits and to compete with other countries, the State will exempt the vessels in ballast that come especially to load these fruits from all custom dues and taxes, except those that have been the object of a special concession.

ART. 7. The State grants thirty months from the signing of the present contract for the Railway Society of the North to effect its first exportation of tropical fruits, after which period the contract shall be considered nul and void, except in case of force majeure.

FRANCO-HAITIAN COMMERCIAL TREATY.

I transmit the text of the new Franco-Haitian commercial treaty, sanctioned by the Legislature on the 4th instant and transmitted to Paris for final ratification.

The articles of Haitian produce principally benefited are coffee and cocoa. Under the old tariff, Haitian coffee paid 156 francs ($30.10) per 100 pounds; under the new tariff, it will pay only 136 francs ($26.24) for the same quantity.

French goods imported into Haiti are exempted from the 50 per cent and 33⅓ per cent additional dues imposed on all other goods.

French sailing vessels are exempted from the same dues; also French steamers for the French merchandise brought by them.

The importation of French goods into this country has gradually fallen off, so that these importations, which ten years ago exceeded 10,000,000 francs ($1,930,000), in 1898–99 scarcely reached 2,000,000 francs ($386,000), which latter figure should produce $250,000 in revenues to the Government. Thus the reduction of the 50 per cent and 33⅓ per cent additional dues will cause a falling off of $120,000.

On the other hand, the application of the minimum duty on Haitian coffee presents compensation to the producer; for, taking the estimate of 40,000,000 pounds of Haitian coffee sold in the French market annually, the reduction of 20 francs per 100 pounds gives 8,000,000 francs ($1,544,000), which is a little more than the export dues paid here on that quantity. It is therefore to be supposed that the Haitian producers and the French consumers will be equally benefited by the reduction; and, as the reduction of the importation duties on French goods may possibly stimulate the trade, the Government may make up the deficit caused by this reduction in its revenues.

ALEXANDER BATTISTE,
Deputy Consul.

PORT AU PRINCE, *August 20, 1900.*

ARTICLE I. Coffee and other colonial products for consumption enumerated in Table A annexed to the present convention shall profit, on importation into France and Algeria, by the lowest customs dues applicable to similar products of other foreign origin.

ART. II. The products, natural and manufactured, enumerated in Table B shall be, on importation into Haiti, completely exempted from the additional importation dues of 50 per cent and 33⅓ per cent, respectively, established by the Haitian laws of November 16, 1876, and March 2, 1888.

The same reduction of the surtaxes of 50 per cent and 33⅓ per cent shall be accorded in that which concerns the tonnage dues paid by French sailing vessels and on the merchandise debarked from French steamers, on condition that the said merchandise be of French origin. This origin shall be verified by means of a certificate delivered by the competent French authorities, visaed by the Haitian consul at the port of embarkment; these certificates shall indicate the number of parcels, their marks, numbers, weight, and contents.

The said certificates of origin shall be visaed by the Haitian and French consuls free of consular fees.

ART. III. French wines imported in bottles shall be equally exempted from the 50 per cent and 33⅓ per cent surtaxes.

French wines imported in barrels gauging at the maximum 13° of alcohol shall pay one-fifth of the present duties per barrel if this is valued at 300 francs ($57.90), and two-fifths if the value of the barrel is above 300 francs.

ART. IV. In case the Haitian Government should modify, for any reason and in any form whatever, the principal or additional duties of its customs tariff, it is expressly understood that the natural or manufactured products of French origin that are by virtue of the present convention exempted from the surtaxes established by the aforecited Haitian laws of 1876 and 1888 shall be in an exactly

corresponding proportion exempted from the new or modified duties established on similar products of foreign production.

ART. V. The present convention shall be ratified by the two Governments as soon as it is possible to so do, and the ratifications shall be exchanged at Paris. They shall enter into effect ten days after and shall remain in force during a minimum period of eighteen months, dating from the exchange of the ratifications.

Six months after the said period of eighteen months, the one of the two contracting parties that shall have the intention of not prolonging further the present convention shall notify the other party, and in case this notification has not been made at the date named, the present convention shall remain in force until the expiration of six months after the denunciation that may be afterwards made.

TABLE A.—*Colonial products for consumption originating from the Republic of Haiti that shall receive, on importation into France, the benefit of the lowest taxes.*

Coffee, cocoa, chocolate, pepper, pimento, amones and cardamoms, cinnamon, cassia, nutmegs, mace, cloves, vanilla, tea.

TABLE B.—*French merchandise that shall be, on importation into Haiti, exempted from the additional dues of 50 per cent and 33 1-3 per cent.*

Acids, tartaric, sulphuric, and other; hooks and eyes of all qualities, needles of all kinds, garlic, stills; albums for photographs, postage stamps, engravings, etc.; almanacs of all kinds, almonds, violin bows, slates for roofing and for schools; plates, china and porcelain; atlases, geographic, hydrographic, etc.; Parisian specialties.

Military articles: Shoulder knots; shoulder belts, plain and embroidered; helmets; cocked hats; braids, silk, gold, silver, real or false; woolen for shakos, sword knots for officers, scarfs, swords, epaulets, tufts for officers; galloons, gold or silver, silk or woolen; cartridge pouches, knapsacks, military coats, dolmans, jackets, caps, stripes, plumes, pompons for officers, tunics, sword belts, caparisons.

Religious articles: Fonts, chalices, patens, pyx, candles, chaplets, crosses and crucifixes, images, medals, books of devotion and of mass, ornaments for churches and priests, scapulars, statues and statuettes, pictures for churches.

Glove stretchers, caps; stockings of thread, silk, cotton, wool (for men, women, youths, misses, and children); brass basins, head dresses of all kinds; jewelry, false and fine; biscuits; empty bottles; boxes, empty, for pills and pastilles; boxes of mathematical instruments, scales of precision, bath tubs, caps of all kinds, gaiters, cork and metal stoppers, candlesticks and candles; purses, bead, leather, or tissue; buttons of metal, pearl, glass, porcelain, gold, silk; brushes, tooth, hair, nail, clothes, and hat; boxes, musical; boxes of perfumery; boots, gaiters, buskins, shoes, slippers of all kinds for men, women, misses, infants, from 6 francs per pair.

Beverages: Absinth, bitters, anisette, cassis, cider, cream of cocoa and others, wines, champagne, muscat, bourgogne, and other wines of France; vermuth; all kinds of beverages, liquors of French origin.

Pocketknives, frames gilt or not; notebooks, books ruled for music and schools; drawers of linen, flannel, cotton; canes of all kinds, gold or silver; tiles for floors; maps, marine or geographical, etc.; cards ruled for music, capsules for bottles, caps for children, centimeters; shawls of silk, woolen, cotton, cashmere, tulle, lace; saddle cloths, cigarettes of the French Regie, chains for surveyors; hats for ladies and misses, trimmed or untrimmed; hats of wool or felt for men and children, bonnets for baptisms and for infants; hats, straw, silk, of high form; pots, iron or

cast iron for kitchens; hose of silk, wool, cotton; shirts, linen, woolen, cotton, silk (for men, women, or children); hair, plaited braids; lining with leather bands for hats; glue; collars, lace or others; preserve dishes, glass or porcelain; strings for violins; cords, silk, for watches or eyeglasses; braids, shoe horns, corsets; bedspreads, woolen, cotton, or marseilles; cravats of all kinds, wash basins of china or porcelain, types for printing, belts of all kinds, candlesticks, cement, blacking, sealing wax; nails, gilt or silver headed; brass for ornaments; nails, wire; colors, riding whips, fine crayons, spoons, forks, leathers.

Ready-made clothing: Waistcoats for men and youths, of all quality; coats, black cloth or other stuff; jackets, frock coats, sack coats of all materials for men and youths, suits complete for infants and youths.

Alimentary preserves: Anchovy; sausages, bologna; gelatin, pâte-de-fois gras, pâte birds, sausages, sardines in oil, tunny fish, asparagus, mushrooms, pickles; mustard, prepared; olives, pease, truffles, and conserves of vegetables; fruits in vinegar, conserves of French preparation, knives, leathers.

Demijohns, empty; sheets for beds, linen or cotton; drugs and pharmaceutical products, candies and confectioneries, thimbles, and shirt bosoms.

Mineral waters and purgatives from French springs, inks, pins, sheathes for instruments, sheathes for seamstresses, inkstands, incense; essences for manufacture of soaps, perfumery, and liquors; fans; tickets.

China or porcelain in sets or assorted in crates or bundles or hogsheads, false collars and cuffs, tippets, neck handkerchiefs; thread, silk, wool, cotton, or in balls for shoemakers; vials, empty; foils; flowers, artificial; fountains, china and porcelain; handkerchiefs, silk or cotton; fruits, dried and in brandy; cheese (pâte grasse, gruyere, moorshead).

Trimmings for hats, composed of flowers, feathers, leaves, etc.; edging, flat and twisted, gold, silver, false or not, and of silk; gloves of all qualities, trimmings for dresses, trimmings for ceilings of bedsteads; vests of flannel, wool, cotton; mirrors, gilt or not, framed or not; tassels of gold, silver, with or without fringe; geographical globes or spheres; engravings; oils, olive and almond.

Instruments, surgical, mathematical, and musical.

Jars, empty or containing merchandise; toys of all kinds, skirts of silk or wool, garters, counters for games.

Lacings, silk, linen, or cotton; books, spyglasses, opera glasses, eyeglasses, spectacles, chandeliers with hooks or glass pendants.

Trunks containing merchandise, sleeves or cuffs of all kinds for men and women, mantillas of silk or lace, marble for tombs; masks of wire for fencing, for carnival; mirrors; mittens; pocket handkerchiefs, silk, linen, cotton; mosquito bars of all kinds.

Tablecloths of all qualities, necessaries for seamstresses, articles for travelers.

Umbrellas of all qualities, stuffed birds and bird wings for hats, onions, olives.

Spangles, gold, silver, or false; baskets and waiters; stationery and letter paper, paper for schools, drawing, music, cigarette, wall paper; umbrellas and parasols; perfumery; skins, prepared; combs and large-toothed combs for the hair, back combs, pipes and cigar tubes, feathers for hats; porcelain, fine opaque and common, by the box or bundle or in sets or by the piece; penholders of all kinds, paper weights, printing presses, pharmaceutical preparations of all kinds, prunes, plush of silk or cotton, alimentary pastes; skins, called imitation morocco; slippers.

Raisins, dry; rulers for desks; curtains, silk, muslin, lace, tulle; dresses; ribbons of silk, satin, velvet, wool, linen, or cotton.

Marseilles soap, napkins for the table and towels of linen or cotton, sewing silk, shoemakers' silk, shoes, cassocks; statues, marble, bronze, or plaster; sirups of all kinds.

Tobacco, cut; snuffboxes; paintings, oil and water; pillowcases of all kinds; carpets, floor, and rugs; tablecloths, other than oilcloth; telescopes.

Tissues; bands of muslin, cambric, organdies; bands of batiste, embroidered, single or double; bazin, muslin, pique for vests and dresses; batiste, linen or cot ton; nainsook, batiste, bombazine of silk, wool, or cotton; brittany cloth; linen, cashmere, of wool or cotton; cassimeres or stuffs of all kinds for pants, diagonals of wool or cotton; woolen cloths of all kinds, stuffs of all kinds, flannel, satinet, satin; silk, light, for dresses; silk, muslin and muslinette, nainsook; morlais, linen and cotton; lace of thread, silk or cotton; merinos; lace insertion and ribbons of silk, linen, or cotton; material for linings; cloth, fine, linen or cotton; linen, madapolam; velvet, silk or cotton; serge; calico, French, and of Rouen, Lille, Limoges, Nancy, etc.; tombs and funeral ornaments, roofing tiles; vases of baked clay, porcelain, iron, or cast iron, for gardens; glassware, glasses for spectacles or eyeglasses; glasses for water, liquor, champagne, wine, vinegar; veils, silk, linen, gauze, muslin, cotton; vermicelli, glass panes, wines, wine in bottles.

COMPETITION WITH AMERICAN KEROSENE IN AUSTRALIA.

Consul-General Bray, of Melbourne, under date of July 27, 1900, sends clipping from a local newspaper regarding the Shell Trading and Transport Company, of London, England. Mr. Bray says he is reliably informed that this company has secured sites in Melbourne and Sydney, on which it will erect large refining works, the product of which will, it is anticipated, compete very keenly with American oil in those markets. The clipping reads:

The mail brings important advices re the Shell Transport and Trading Company, which, as has already been stated in these columns, is shortly to strike a blow at the prestige of American kerosene in the Australasian markets. At the meeting held in London on the 21st of June, an increase in the capital to £2,000,000 ($9,733,000) was sanctioned. The net profits for 1899 were £366,069 ($1,781,000), against £217,097 ($1,056,000) in 1898. Large reserves were put by for depreciation, another £100,000 to the reserve fund, and an 8 per cent dividend paid. Regarding the extension of the business to the colonies and other centers, the chairman said:

"In view of the very large supplies coming to us for marketing, it has been necessary, in the opinion of the directors, to widely extend the field of the company's operations, and accordingly arrangements have been concluded to extend the business to many new ports in China, and we still hope that, in spite of the trouble now prevailing there, we shall see the company's oil retailed in the streets of Pekin before the end of the year. It is a matter of congratulation to the directors that they have been able to conclude arrangements with Messrs. Julius Weil to act as their agents in the Cape, this firm possessing unrivaled distributing media, and as soon as the war is over installations will be erected at the principal towns in the colony. Excellent sites have been secured in Melbourne and Sydney, and arrangements have also been made to extend this company's business to Adelaide, Brisbane, and New Zealand, the quality of the kerosene now being produced rendering it exceptionally suitable for the Australian markets. After great difficulties, we have also succeeded in obtaining permission to erect tank storage at the principal ports in Java, and sites have been acquired, as also at Zanzibar and Mombassa. The shareholders

will thus see that the business is still in its infancy, and the directors consider it sound policy to have the company's business as widespread as possible, so that in case of competition they may be free to choose the most remunerative markets throughout the world in which to place their products."

Regarding the properties, etc., of the company, the chairman's speech contains the following:

"No less a sum than £549,848 3s. 4d. ($2,675,000) has been invested by the company in purchasing and developing their fields in Borneo. We have acquired an oil-bearing territory of about 460 square miles in extent, and for the expenditure made we have reached an oil production which has exceeded 1,000 tons a day, and we have provided and paid for a refinery capable of dealing, when complete, with 3,000 tons of crude oil daily. The actual portion now at work is handling 2,500 tons of crude oil per week. Our local manager promises that by the end of August a second bench of stills will be at work, when we can deal with 5,000 tons of crude oil weekly, and every effort will be made to complete the other two benches of stills already provided and awaiting erection. Taking present market values for the various products of the oil, and on the scale at which we are working, an income may be expected at the rate of about £300,000 ($1,459,950) per annum. By the end of August this should be £600,000 ($2,919,900), and when the whole of the four benches of the refinery are at work, the income from Borneo products alone should exceed £1,000,000 ($4,866,500) per annum. This is, of course, provided that the present supply of oil continues and markets are found, and that present prices for the various products upon which my estimate is based are maintained."

ECONOMIC CONDITIONS IN ZANZIBAR.

While the trade of Zanzibar during the last twelve months has been average, it is remarkable for the fluctuating markets that have occurred during that period.

The year started in brilliantly, owing to the prosperity resulting from the enormous clove crop of the preceding year and the money put into circulation by the opening up of the Uganda Railway.

In October a turn for the worse came. The Boer war began and business was hampered by the uncertainty usual at such times. Censors prevented the use of private codes. Telegraphing was not only very expensive, but most unsatisfactory.

Rains failed on the coast. Countries that used to export grain became buyers at famine rates. The clove crop was the smallest for many years, almost a record. It was only 199,000 frasilas (6,965,000 pounds), as against 600,000 frasilas (21,000,000 pounds) for the year before.

In the midst of these hard times Aga Khan, prince and spiritual head of the Khoja community, the principal Indian merchants of Zanzibar, arrived on a tour of inspection and collection. The Khojas, who are probably one of the most faithful of all "The Faithful" castes, prepared royally for his coming. They built houses, they imported horses, they had ready a very worthy retinue, all of which

cost money they could ill afford. Hundreds came from the coast, but, instead of this having the effect upon trade that a large European gathering of that kind has, it was quite the contrary. The Indians took their holiday in worshipping and paying tribute. Women threw their jewels at his feet; men wronged their creditors and gave the money to him. Hardly a rupee of all this was left in Zanzibar. It is estimated that the prince took from Zanzibar no less than 600,000 rupees (about $200,000).

One item of export only has increased, viz, hides. This was directly owing to the famine on the coast. The cattle could not be fed and died or were killed for their hides. The greatest importer of Zanzibar hides was the United States.

Zanzibar, from an economic standpoint, is an interesting study. It might be likened, this half-way house of eastern Africa, to the place where two tides meet. In the lack of current, a scum of flotsam and jetsam remains. India sends her plague refugees, South Africa her war fugitives. The northeast monsoon brings dhow loads of passengers from the Persian Gulf that never seem to realize the use of the southwest monsoon.

The Germans, aided by their subsidized freight lines and factories, are a great power here; but after all their greatest trade is in articles "Made in Germany," an expression, by the way, that is appreciated as far inland as Livingstone's tree.

France furnishes wines and articles de luxe. England sends beer and spirits, and also competes to a great extent with the Germans for the trade in printed goods, being largely hampered, however, by a conservatism that tries to sell the native what she has, rather than what he wants.

America's largest trade is in kerosene and gray sheetings and shirtings. Of kerosene, $100,000 worth was imported last year; of cotton goods, $250,000 worth. It is interesting to note here the general satisfaction that the American locomotives sent out for the Uganda Railway are giving.

The general list of exports to different parts of the world is published at the end of the calendar year only, and at the present time no figures can be given. Declared exports to the United States for the fiscal year just ended are as follows:

Ambergris	$325.00
Calfskins	18,446.58
Cowhides	55,436.05
Chiles	20,675.34
Cloves	40,066.27
Goatskins	58,053.83
Gum animi	17,130.92
Ivory	179,030.26

Ivory is undoubtedly decreasing, but the finding of old hoards and the fact that the caravans push each year farther inland keeps the supply up to the average. The British and German authorities in their spheres of influence are trying to preserve the elephant by charging heavy gun-license fees and by prohibiting, under heavy penalties, the killing of immature and female elephants. The largest pair of tusks ever found were shot last year near Mount Kilimanjaro. They weighed, respectively, 224 and 239 pounds. They were of the finest quality of ivory and without disease or flaw of any kind. They were sent to the United States.

The Uganda Railway progresses. It will probably be completed in about three years. Hitherto, the only influence it has had upon trade is through the number of coolies engaged in construction and the supplies necessary for their maintenance.

It is evidently the aim of the British Government to make Mombasa, the port of the railway, displace Zanzibar as the most important port of East Africa. Whether European enterprise can overcome native prejudice and the prestige of centuries remains to be seen. Zanzibar watches half interestedly, half sleepily. Zanzibar's excuse for being was her Arab population. The Arab's raison d'être is the slave; the slave has been taken from him, and the Arab has lost his occupation.

HARRIS R. CHILDS,
Vice-Consul.

ZANZIBAR, *July 2, 1900.*

TRADE CONDITIONS IN SOUTH AFRICA.

Kuhlow's German Trade Review and Exporter, published at Berlin, contains an article with reference to trade conditions in South Africa, which should also be of interest to American firms doing business there, and I therefore quote the same in full:

The influx of commercial travelers from Europe and America into South Africa has been especially noteworthy of late years. In 1898, about three hundred licenses were granted to commercial travelers in the Cape alone. Although commercial travelers enjoy certain privileges on the railways, inasmuch as they may travel first class at second-class rates and are granted reductions in respect to their luggage, yet their expenses are as a rule fairly high.

The cost of license in Cape Colony is £25 ($121) annually; in British Bechuanaland, £10 ($48); in Natal, from January 1, 1899, £10. Some German firms have already adopted the system of other competing countries and pay the agents who introduce their goods a fixed salary besides commission, with additions for traveling, advertising, etc. Travelers for single firms or for combinations of firms have to be supported liberally by their principals, if they are to be successful. The South African Commercial Travelers' Association was recently formed in Cape Town, to protect the interests of travelers; its members soon numbered three hundred.

The travelers of larger houses as a rule visit only important wholesale and importing firms; these are situated principally at the ports and in some of the larger inland towns. Owing to the keenness of competition, some commercial travelers have sold goods on credit to small inland firms; but there is considerable risk about business of this kind, as many of the smaller firms are not supported by sufficient capital and are too ready to engage in larger transactions than their means justify, and it is not advisable to depart from the usual plan of selling only to importing firms or agents. The usual tour of commercial travelers in South Africa is as follows: Cape Town, Port Elizabeth, Graff-Reinet, Middleburg (Cape Colony), Grahamstown, East London, King Williams Town, Queenstown, Durban, Pietermaritzburg, Pretoria, Potschefstrom, Kimberley, Bloemfontein, Beaufort, west, Cape Town, or in the inverse direction, direct from Cape Town to the north and back by the eastern route. Many commercial travelers start from Delagoa Bay and visit the Transvaal before going south. Expenses amount to from £2 10s. to £3 ($12.16 to $14.59) per day along the lines of railway, and are correspondingly more on other routes.

Commercial travelers and representatives should be furnished with complete assortments of patterns and samples. The more familiar types meet with ready sale. The establishment of sample depots is said to answer. Americans, especially, attach importance to exhibiting their samples to advantage—for example, machines and agricultural appliances are shown at work whenever practicable. Although the outlay in establishing such depots is often very considerable, they are, as a rule, remunerative, if they are intelligently and energetically managed. In this respect, as well as in the selection of agents and representatives, economy is a mistake.

Great attention should be paid to advertising, which plays a great part in commerce in South Aferica, as well as in other English-speaking countries. Poorly prepared placards and catalogues say little for the goods they refer to and their manufacture. Exporters should, like those of other countries, send suitable circulars or cards with each consignment of goods, when the nature of the goods allows of this course. Advertisements for outside of buildings, etc., should be weatherproof and made of sheet iron or similar material. Catalogues and price lists should be well printed and on good paper, and if provided with illustrations these should be printed in the best style. An importer will not throw aside a well-prepared catalogue, but will keep it for frequent reference, so that a durable binding should be provided.

Price lists, catalogues, etc., of whatever kinds, should be drawn up in English and German. If they are intended to reach the Boer population, the "Taal" (Dutch African dialect) should be used. All these points, on which local representatives—knowing the country well in each particular case—would be able to give the best information, should be scrupulously observed by manufacturers and exporters, or their interests will suffer and the work of their agents be rendered difficult or impossible.

Complaints are frequently heard of careless and faulty packing of goods ordered. The following rules should be observed:

Packing should never be left to inexperienced hands, and should be effected in exact accordance with the wishes of the customer, and only such material as he specifies should be used to fill the interstices between the articles in a package. If, for example, an importer requests that bottles of acid should be packed in carbonate of lime, it will not do to pack them in shavings. Only good, strong boxes should be used for packing, about 40 or 50 inches square, and under no circumstances should boxes be selected which are too large for the goods they are to contain, and empty spaces should always be avoided. Several smaller boxes are

preferable to one large one. At port towns there are facilities for unloading, etc.; but packages have often to be sent long distances in the interior by wagon, when they are subjected to rough handling.

The external covering of the goods in the boxes should be as far as possible waterproof, and each separate package should be wrapped in good packing paper. The articles themselves should, whenever practicable, be packed in cardboard boxes and the like; for example, knives and scissors should be fastened on cards instead of being wrapped in untidy-looking brown paper. Articles got up in this way are more attractive to buyers, and remain presentable, even though subjected to frequent handling.

Terms on which business is done vary in South Africa as in other countries. Credit of from three to six months is, as a rule, accorded to firms of good reputation. Some houses settle against bills of lading at thirty, sixty, ninety, or one hundred and twenty days' sight; others pay cash through German or English houses on sale of the goods. The amount of credit to be given should of course be regulated according to the circumstances of each case, and manufacturers who have never before done a direct export trade to South Africa should make a thorough study of the market and all relative circumstances, or else leave direct trade to experienced exporters. The chief point is, and always will be, to supply the customer punctually and rapidly with the exact article he requires and in the exact way he prescribes.

RICHARD GUENTHER,
Consul-General.

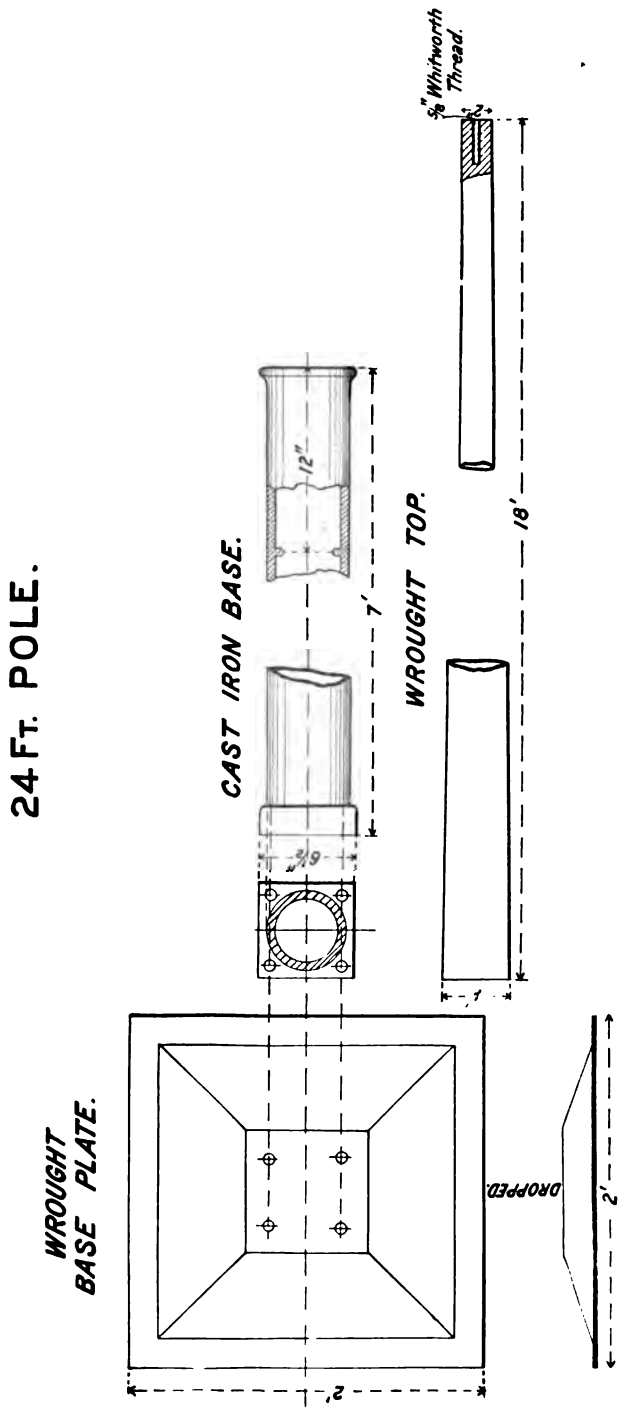
FRANKFORT, *August 13, 1900.*

DEMAND FOR IRON POSTS IN SOUTH AFRICA.

Consul-General Stowe writes from Cape Town, July 24, 1900:

I submit herewith diagram of an iron post used by the railway lines and by the telephone and electric companies for carrying wires. The demand for these posts will be large; at the present writing, several thousand are needed. England and Germany have been the exporters heretofore, and it is time for United States manufacturers to compete.

Up to the present, no American manufacturer has been found who could produce the tapered "wrought top." Specifications have been furnished, and invariably the reply has been that only straight tops could be supplied, and I am sending the diagram to the Department in the hope that its publication will meet the eye of some manufacturer who can produce it and is willing to submit prices f. o. b. New York City.


24 Ft. POLE.
CAST IRON BASE.
WROUGHT TOP.
WROUGHT BASE PLATE.
⅝" Whitworth Thread.
12"
7'
18'
2'
DROPPED

QUININE AUCTION IN BATAVIA.

The third public auction sale of quinine was held at the Merchant's Exchange at this city on the 27th of June last.

This sale has been considered fairly successful, and the limits were mostly all realized.

Beginning with Editio II, packed in cases of 22.68 kilograms (50 pounds), limited in lots at 21 florins per kilogram ($8.44 per 2.2046 pounds), some 4,173.12 kilograms (9,200 pounds) were sold at 21.05 florins per kilogram ($8.46 per 2.2046 pounds), thus exceeding the limit.

Offers were then made at 20.95 florins ($8.42), which were at first refused, upon which the limit was lowered, and seven lots were sold at 20.75 florins ($8.34) per kilogram. This action brought forth a protest from the first purchasers, who had bought at the limit of 21 florins.

The limit of 21 florins was again asked, but lots 211 to 300 were not sold, as the bids did not reach the limit.

Editio II, packing at purchaser's option, four lots were sold at 21 florins per kilogram, but there was very little demand for this unpacked article.

Editio III was all sold at fair prices. Two hundred and sixteen kilograms (476 pounds) were sold at 25.40 and 25.45 florins ($10.21 and $10.23) per kilogram, and 24 kilograms (52.9 pounds) at 25 florins ($10.05) per kilogram; the limit for these lots being 25 florins.

The limit of 21 florins for Editio II is equivalent to the unit price of 0.08¾ florin (3.5 cents) for the bark in Amsterdam.

B. S. RAIRDEN,
Vice-Consul in Charge.

BATAVIA, *July 9, 1900.*

TEA CULTIVATION IN MALACCA.

Consul-General Moseley transmits from Singapore, July 25, 1900, a cutting from the Straits Times furnishing information in regard to the cultivation of the tea plant in Malacca, which has produced, the writer states, tea of "excellent quality and flavor." Mr. Moseley says:

Indian tea packed in tin cans is retailed in Singapore at 75 cents Mexican (35.7 cents*) per pound, while Malacca tea, said to be just

* The United States Treasury valued the Mexican dollar, July 1, 1900, at 47.6 cents.

as good, can be bought, similarly packed, at 40 cents Mexican (19 cents) per pound.

The fact of such a margin in price should be a matter of interest to our tea dealers.

The local agents are Messrs. John Little & Co., Limited, Messrs. Hoon Keat & Co., and Messrs. Yong Lee Seng & Co., the two last named being reputable Chinese storekeepers.

The article reads:

ABOUT TEA—BY AN EXPERT.

Malacca tea has come into the market, and on tasting it I find it most excellent and able to hold its own alongside of Indian tea at a smaller price. My knowledge of tea goes back to a very early period, having hobnobbed in 1863 with old C. A. Bruce, who (in 1825) was the discoverer of the tea plant in Assam. He was charged by the old East India Company with starting the proper cultivation of the plant and manufacture of the leaf—the first efforts made to grow and make tea out of China, which has now spread all over India north and south, Ceylon, Natal, Java, the Fiji Islands, and to Malacca. He had a large staff of Chinese workmen placed under him imported from China, and many a story I could relate of his narrow escapes from the wild animals which then abounded in Assam and from the wilder and more savage tribes who in those days made Upper Assam the scene of their predatory attempts.

The tea plant, as has been said, was found in Assam growing wild, and to a great height and in large bush tracts, in 1825. In 1839, it was noted that the consumption of tea in England—of China tea—was 31,829,620 pounds. In the early sixties tea cultivation in Assam was thown open to the public, but was very little availed of. This year (1900) the export of Indian tea to England amounted to over 60,000,000 pounds, while that from Ceylon was over 50,000,000 pounds. Such has been the progress of the tea trade in India and Ceylon alone. I feel sure that whoever has begun the tea industry in Malacca knows his work well and thoroughly. I say this from the excellent quality and flavor of "Malacca tea." Yet, having seen and been over a great many tea gardens in India and other parts of the globe, and also knowing the character of Malayan jungles, a few hints on the cultivation may not be out of place, the more so as I believe tea cultivation is destined to spread over the peninsula. The soil ought to be granitic, with something of lime, and the garden should be on well-drained ground, though there should be streams and rivulets flowing through the areas. In clearing, the jungle—large trees and all—should be made a clean sweep of and burnt on the ground. In planting, if it be the Indian plant, put in two or three seeds on small ridges of earth where the plants are to be grown; or, if it be the China plant, a handful or two of seeds, covering them over. The crop may begin to be gathered the third year, though the plants do not come to maturity under six years. The continual rains here favor both growth and abundant crops. The leaves should not be collected on a rainy day, but at about 10 a. m. on a sunny morning. The difference in the leaves collected in rain and on a sunny morning is nearly half the produce, which means also so much time, labor, and expense lost. Leaves on the plants should not be allowed to grow large—a plantation thus gets out of hand and coarse. There is no need of adding that the soil must be kept perfectly free from weeds, and that the more twigs the more produce; also, that all plants growing too high for easy plucking of the leaves should be shortened out. Every few years, when the bushes are getting coarse, they should be cut down to allow of a new growth of shoots, thus renewing the garden.

THE TEA TRADE OF ENGLAND WITH INDIA, CEYLON, AND CHINA.

The London Daily Mail in a recent article says:

There was a time when the word China was synonymous with tea; yet for many years the consumption of Chinese tea in England has been steadily on the decrease. In 1859, China practically monopolized the tea trade of the world. During this same year, the United Kingdom consumed over 76,000,000 pounds of tea.

Ten years later, in 1869, China had increased her sales to us by nearly 25,000,000 pounds, but India had then sprung up as a rival and imported 10,716,000 pounds of tea into Great Britain.

In 1879, we find that the imports from China and from India had each increased by 25,000,000 pounds, but it is between that year and 1889 that the most remarkable changes took place.

Instead of selling us 126,340,000 pounds of tea as in 1879, China in 1889 only sent us 61,100,000 pounds, while India actually added almost that quantity to her previous sales.

The importation of Ceylon tea into Great Britain only commenced seriously in 1884; but five years later we find her importing 28,500,000 pounds.

Last year, the consumption of Chinese tea in Great Britain had sunk to an insignificant 17,000,000 pounds, while Ceylon alone imported nearly five times that quantity; India during the same period actually beating her own splendid record by sending us 134,018,920 pounds.

We may well ask what will be the figures for 1900.

ERNEST L. HARRIS,

EIBENSTOCK, *August 20, 1900.* *Consular Agent.*

GERMAN SUGAR IN JAPAN.

Vice-Consul Murphy sends from Magdeburg, August 4, 1900, extract from the Magdeburg Zeitung in regard to prevailing freight rates and the increasing exportation to Japan of German and Austrian sugar, as follows:

JAPAN'S IMPORTATION OF SUGAR.

The importation of sugar into Japan is increasing. The amount imported in the first quarter of 1900 was 1,041,061 piculs (70,000 tons), valued at 6,961,244 yen ($3,500,000), while in the corresponding quarter of 1899 the amount was only 541,478 piculs (36,000 tons), valued at 3,349,409 yen ($1,700,000). Of the amount imported in the first quarter of 1900, Germany supplied 216,390 piculs (14,000 tons). The importation from Germany was exceeded only by that from Hongkong (262,851 piculs=17,000 tons). The rapid increase of Austria's exportation of sugar to Japan is, however, a danger which the German industry must meet. In the first quarter of 1899, Japan imported from Austria only 338 piculs (23 tons) of sugar, but in the first quarter of the current year the amount had increased to 170,292 piculs (11,000 tons). Thus, Austria has gained the third place among the competitors for the

control of the Japanese market. The German consul-general at Yokohama reports that this astonishing growth is due to cheaper freight rates offered by the Austrian steamship companies. The Austrian freight rate is 20 marks ($4.76), while the German companies charge 27½ marks ($6.55) and now propose raising the rate to 30 marks ($7.14). As the consumption of sugar in Japan is increasing, and as the Japanese sugar industry is unable to meet the domestic demand, steps should be taken to facilitate German competition by securing for our exporters the same freight rates as now obtain in Austria.

DREDGE FOR CALCUTTA.

At the successful conclusion of the trials of the great dredge plant built for the Russian Government by the Société John Cockerill, of Seraing, near Liege, Belgium, from the designs of Lindon W. Bates, of Chicago (reported by me February 9, 1899, and published in CONSULAR REPORTS No. 224, May, 1899, page 79), Mr. Bates was invited to accompany one of the Russian imperial ministers through the canal system Marie, between the Baltic Sea and the head waters of the Volga River, and to inspect and report on the proposed widening and deepening of the system. As the outcome of this report, Mr. Bates and the Société John Cockerill, in collaboration, are in negotiation with the Russian Government to supply the plant for the destined improvement, according to the recommendations of Mr. Bates.

These dredges are designed with special reference to the varying local conditions which obtain in the different sections of this important canal system. There are three types to be employed: the Bates hydraulic suction dredger, the American single-bucket machine, and the American endless-chain-bucket machine, which was so successful at Panama.

The first of four dredges has just been completed at the Walker Shipyards, London, England. The remaining three are intended for work in Queensland, and are much more powerful than the vessel forming the subject of this description, which is intended for work at the Kidderpore docks, Calcutta, India. These are large and expensive docks, which were finished a few years ago and have already been found to be too small for the demands of commerce.

The orders for these dredges were to a large extent the outcome of the remarkable results obtained with Mr. Bates' dredger *Beta* on the Mississippi River, and since then with the big dredger built for the Russian Government by the Société John Cockerill, of Seraing, Belgium, and intended for the improvement on the Volga. While the leading features of the Bates system, with numerous improvements, have been retained, a considerable change in the appearance and arrangement of the craft has taken place, which is primarily due

to its having to perform the voyage to its destination under its own steam.

The dredging mechanism is of the kind generally adopted in the Bates system, and consists of a hollow, rotary milling cutter at the end of a suction ladder, capable of work at varying depths, the extreme in the present case being 32 feet below water level. The spoil is discharged by the pump through a system of floating pipes, incased in elliptical pontoons and connected flexibly by means of the Bates ball-and-socket joint, packed with pneumatic tubing, which has been found greatly superior to the flexible rubber or leather joint pieces usually employed. The end of the discharge pipe line is formed by a pontoon of special shape and adapted for connection to shore pipe, or else for discharging into the water. In this case, the motion necessary for distributing the dredged material is imparted to the pontoon line by a hydraulic distributer, which also forms one of the special features of the system. The dredger is adapted for working either straight ahead or for radial dredging. In the latter case it is anchored by one of two spuds or vertical anchors, alternately, and swung through the arc requisite to obtain a channel of the desired width. The main dimensions of the hull are: Length over all, 128 feet; length between perpendiculars, 124 feet; breadth, extreme, 30 feet; depth, molded, 8 feet 9 inches.

A raised forecastle deck and bridge deck are provided, and aft of the bridge deck a quarter deck. The boiler room occupies the center of the vessel, with coal bunkers of a total capacity of 70 tons on each side. Under all the machinery and boiler spaces a double bottom is built. Ample accommodations for European officers and crew, and for a native crew, are also provided. The suction ladder is placed in a well way at the bow.

The machinery comprises the main pumping engine, driving the sand pump, the propeller, the cutter engine, a hoisting engine for raising and lowering the suction ladder, and a similar engine for lifting the spuds, steering engine and the usual auxiliary machinery, with the addition of a force pump, which supplies filtered water to all bearings placed under or in contact with sandy water, so as to exclude grit from the working surfaces.

The cutter is of the usual Bates form, and consists of twelve knives made of steel plate and forming a hollow cylindrical milling cutter.

The dredging pump has a steel runner and a cast-iron casing, made in five pieces, which experience has shown to require renewal at different times.

The main engine, which is coupled directly to the centrifugal pump, is of the usual vertical marine compound type. Steam is

supplied to all the engines from a Babcock & Wilcox marine boiler, with four furnaces adapted for using Indian coal.

A feature of this dredger is the spud or vertical anchor, two of which are provided at the stern. They are square spars of Oregon fir, guided in well ways built into the ship, and are fitted with cast-steel shoes.

Very complete arrangements are made for controlling the whole of the dredging and navigating mechanism from the operating house.

A telephone is also installed on the end pontoon, communicating with the pilot house, so that the officer in charge is in constant communication with all his subordinates.

The end pontoon, by which the position of the whole line of discharge pipe is controlled, also contains some features of interest. It may be used either for distributing the spoil into belts, or for connecting to a line of shore pipe discharging over a bank. Suitable arrangements for changing from one method to the other are provided.

The capacity of the dredge is from 300 to 1,000 cubic yards per hour, according to the character of the material handled and the distance to which it is discharged.

Satisfactory dock and sea trials were made with the dredger before it left the Tyne. A speed of 8 knots was developed on trial.

ALFRED A. WINSLOW,
Consul.

LIEGE, *August 15, 1900.*

THE FORMOSA CAMPHOR MONOPOLY.

In addition to the information regarding the Formosa camphor monopoly given in my report published in the June 30th issue of the ADVANCE SHEETS OF CONSULAR REPORTS,* I have to state that information has been received to the effect that the camphor bureau is prepared to establish a distributing agency in Chicago, if the demand for camphor in that city is sufficient to justify it. It should also be noted by purchasers in the United States that they have the right to demand that supplies be furnished them in New York, by the distributing agency, at the official prices, viz, Grade A camphor blocks at 107.843 yen per picul (133 pounds), exclusive of import duties, and crude at 89.702 yen per picul. The equivalent in United States gold is, roughly, $53.92 and $49.85, respectively.

The so-called "camphor factory" built by the government at the capital, Taihoku (Taipeh), is the most imposing in appearance of any of Formosa's industrial establishments. It consists of one main

*No. 769; also in CONSULAR REPORTS No. 240 (September, 1900).

building containing the distilling apparatus for Grade A camphor, one building equipped with the necessary apparatus for the extracting of camphor from camphor oil, a large warehouse for storing the drug, a packing house and numerous outhouses, including barrack-like quarters for the laborers and neat little cottages for the skilled workmen, officers, etc., connected with the factory. The factory buildings are big, solid structures of brick and stone and provided with not only the latest hydraulic and steam pressing machinery, but with much apparatus specially designed for the work. The grounds and buildings are illuminated by electricity supplied by the factory's own plant. The buildings impress one as having been erected with the idea of permanency, and the Formosa government evidently hopes to control the camphor situation for many years.

The preparation of the two grades, A and B (crude) camphor, is as follows:

The camphor is obtained by steaming camphor-wood chips in roughly built furnaces set up in the hill districts. A vapor arises from the steaming wood and condenses in cooled wooden receptacles, forming a snowlike deposit of camphor, containing, however, some quantity of oil. After removing the camphor from the condenser, it is allowed to drain in tubs, until a considerable portion of the oil has run off. The camphor is then packed in canvas bags and transported to the central office at the capital. The camphor destined for shipment as crude is not subject to further treatment after leaving the country districts. For shipment, it is packed by hand in zinc-lined cases holding about 1 picul (133 pounds). This grade is similar in form to the crude camphor exported prior to the establishment of the monopoly, although the government has been able to improve it somewhat in quality.

The camphor for Grade A blocks is treated at the factory described above. The plant possesses six large distilling furnaces measuring some 24 by 12 by 5 feet and two crystallization chambers some 30 by 24 by 24 feet. Several thousand pounds of the crude camphor are placed in one of the large iron retorts, and, after the openings in the latter have been closed and sealed, air is forced in to hasten evaporation. For the first forty-eight hours a slow fire is maintained, which is sufficient, however, to drive off the water and oil, these passing through a pipe leading from the top of the retort into a tank cooled by water. The heat is now increased, and the above pipe having been shut off and a second one opened, the camphor fumes pass through the latter into the crystallization chamber, the roof of which is cooled by running water. Here it crystallizes as flowers of camphor. The camphor is now ready for pressing,

This is accomplished by first shaping the camphor into the form of a block by the use of wooden molds. The block is then pressed by steam power and, lastly, is subjected to a very high hydraulic pressure. The result is a hard, almost opaque brick of practically pure camphor weighing 10 kin (13⅓ pounds). These blocks are now wrapped in oiled paper and packed in zinc-lined boxes holding ten and, after receiving the government label of "crude camphor, pressed by the Formosa government," are handed over to the selling agents. The government factory has at present a yearly capacity of some 2,700,000 pounds of Grade A.

A clerical error in the consular report mentioned above has somewhat obscured the facts relating to the expenditure and receipts of the monopoly. The total Formosa government expenses, including cost of camphor, are given in the budget for 1900 as 2,127,611 yen ($1,063,805) and the receipts as 3,455,035 yen ($1,727,512). This leaves a profit of 1,327,424 yen ($663,712), or about 34 yen ($17) a picul (133 pounds). This is taking the maximum production for the year at 39,000 piculs (5,187,000 pounds).

Some 2,000,000 pounds of camphor are consumed in the United States yearly.

JAMES W. DAVIDSON,
Consul.

TAMSUI, *August 4, 1900.*

CARRIAGES AND HARNESS IN HONGKONG.

Within the last six months, the manufacturers of carriages, carriage hardware, and harness seem to have singled out Hongkong as a likely market in which to sell their wares. I am at a loss to understand this crusade, as I am flooded not only with letters and printed circulars, but with publications devoted to that line of commerce. I trust that nothing that I have said in any previous report has caused our manufacturers such a waste of postage stamps and good printed matter.

There is absolutely no market whatever for carriages or harness in Hongkong or South China. It is only necessary for the exporters to refer to the cheapest kind of handbook to demonstrate how useless their attempt has been. Hongkong is situated on a rocky island and rises, terrace by terrace, from the water's edge 1,900 feet in the air to the peak. On the island itself there is one short drive possible, and the colony has the proud distinction of possessing three bona fide carriages which are seen usually on ceremonial occasions. All the drayage of the city is either done on the shoulders of coolies or by means of roughly made handcarts. The means of locomotion

for the residents is principally the sedan chair, although a number of rickshaws run on the lower levels. There is a possible sale for a number of racing saddles and riding saddles, as we can boast of a few China ponies that are used for polo or scratch races.

As to the neighboring Chinese provinces, they are out of the question, as they possess no roads, and probably will not for the next decade.

I trust this brief résumé of the situation will tend to turn the attention of our manufacturers of carriages to other fields, where the rewards are greater and more quickly realized.

ROUNSEVELLE WILDMAN,
Consul-General.

HONGKONG, *August 8, 1900.*

THE TRANS-SIBERIAN RAILROAD.*

The number of inquiries received at this consulate regarding travel over the Trans-Siberian road is increasing. Passenger traffic is suspended east of Irkutsk, the rolling stock being engaged in transporting troops and munitions of war to China. This interruption, it is expected, will be temporary. In this connection, I have felt that the following from the "Novoe Vremia," of August 13, 1900, will be of interest:

Daily trains start from Vladivostock to Chabarovska with a dining-room car in which, for a moderate price, travelers can lunch, dine, sup, have tea, coffee, and wine. The prices are limited by a tariff approved by the administration. The daily board is from 3 to 5 rubles ($1.50 to $2.50).

The price from Vladivostock to Chabarovska is:

	Rubles.
First class	17.00=$8.50
Second class	10.20= 5.10
Third class	6.00= 3.00

The distance between Vladivostock and Chabarovska is 716 versts (482 miles). Trains start from Vladivostock in the morning at 9.25 o'clock and arrive in Chabarovska the next day at 1.20 o'clock; time 28 hours.

The journey from Chabarovska to Blagoveschenska and farther to Sretenska (2,136 versts, or 1,423 miles) is via the River Amur and the Shilka. There are 108 steamers on the basin of the Amur, 4 transport boats, and 2 steam long boats belonging to private companies and to the Minister of Ways and Communications. The steamers of the Amur company are preferable. These steamers leave Chabarovska every five days and go from Chabarovska to Blagoveschenska in six days. The board is 2 rubles ($1) a day for one person. Travelers receive, at 8 o'clock in the morning, tea with bread and butter; at 12 o'clock, a dinner consisting of two dishes of meat and pudding; at 4 o'clock, tea; and at 8 o'clock in the evening, one dish of meat and tea.

From Blagoveschenska to Sretenska the steamers require eight days and run even in case of low water.

*A report covering the same data has been received from Consul Smith, of Moscow.

The fare from Chabarovska to Blagoveschenska (918¼ versts, or 618 miles) is:

	Rubles.	
First class	22.96	=$11.48
Second class	13.97	= 6.88
Third class	3.60	= 1.55

From Blagoveschenska to Sretenska (1,197½ versts, or 805 miles), the fare is:

	Rubles.	
First class	29.94	=$14.97
Second class	17.96	= 8.98
Third class	3.99	= 1.99
Luggages.....per pood	1.20	= .60

From Sretenska, the journey is by rail. The trains leave Sretenska Tuesdays, Thursdays, and Saturdays at 6.40 o'clock in the evening and arrive, via Tshit, the third day, at Muissov, on the southeast bank of the Baikal.

Travelers cross the Baikal at 4 o'clock, connecting with a train on the other bank, the distance to Irkutsk being 62 versts (41 miles), and from Sretenska 1,175 versts, or 781 miles. For this distance passengers pay 19 rubles ($9.50), including the passage through the River Baikal, in first-class cabins; the second and third class on the boat pay a few kopecks less.

Between Irkutsk and St. Petersburg there are daily trains with all three classes of carriages, making the journey (5,597 versts) in twelve days.

The fare is:

	Rubles.	
First class	69.50	=$34.75
Second class	41.70	= 20.85
Third class	27.80	= 13.90

Besides these daily trains, an express train starts from Irkutsk to Moscow once a week—on Fridays.

The journey from Vladivostock to St. Petersburg (9,922 versts, or 6,677 miles) can be effected in about thirty or thirty-five days.

The journey from St. Petersburg to Vladivostock is effected in six days less (twenty-four or twenty-nine days), because steamers go down the Amur in less time than up the river.

The fare, including the steamboat and board, is:

	Rubles.	
First class, about	250	=$125
Second class	170	= 85
Third class	90	= 45

W. R. HOLLOWAY,
Consul-General.

ST. PETERSBURG, *August 24, 1900.*

INCREASE IN RUSSIAN TARIFF.

The Department has been advised by Mr. Peirce, chargé at St. Petersburg, under date of August 6, 1900, that Russian import duties have been increased upon certain articles, for the purpose of raising revenue, the increase to take effect August 5. Consul Marshal

Halstead, of Birmingham, sends, August 13, a summary of the increases, prepared by the London Times, as follows:

(1) *Increase of 50 per cent.*—Flour malt and groats, various fresh and dried fruits, spices, roasted coffee and substitutes thereof, cocoa; tobacco, cigars, and cigarettes; wines in casks, beer and cider, fish (fresh, smoked, or salted, including herrings), certain peltries; caoutchouc and gutta-percha, and other gums in general.

(2) *Increase of 30 per cent.*—Coffee, raw; boots and shoes of all kinds, except women's boots and shoes of silk tissue and kid, finished or not; leather cut out for boots or shoes, etc.; saddlers' and harness makers' wares, planks and joists not exceeding 2 inches in thickness and not planed.

(3) *Increase of 20 per cent.*—Marmalade and ground cocoa, unsweetened; animal fats, candles, basket makers' wares, porcelain ware (except majolica); liquid products of petroleum, etc.; oil and spirit of turpentine; cutlery set in gilt, plated or fine materials; side arms; firearms, so far as not prohibited, and accessories therefor; watches in gold cases; vehicles, except velocipedes; raw jute, linen and hempen cloths and cambrics, clothing and underclothing wholly or partly made up (except men's clothing of woolen tissues), fancy articles of copper or its alloys; stamped articles of iron, steel, zinc, etc.

(4) *Increase of 10 per cent.*—Bone glue; small hides, tanned, etc.; large hides, tanned, etc.; cabinetmakers' woods and woods in sheets or veneers, carpenters' and coopers' wares; furniture and other wooden wares, upholstered; drainage and water pipes of clay; china ware, white or of one color, dyed in the paste; white or half-white glass and glassware not specially tariffed, pressed or molded; glassware not specially tariffed, of a single color or double-colored glass, dull, opaque, white, fluted, etc.; glassware of all kinds, painted, enameled, gilt, etc.; sheet glass neither molded nor polished, plate glass and mirrors; caoutchouc, crude, and articles thereof not specially tariffed; various chemical products, including sal ammoniac, carbonate of ammonia, soda and potash, chloride of lime, acids, etc.; castor oil, cocoanut and palm oil, volatile and sweet-scented oils, soap varnishes and tanning extracts; indigo, various colors; ware of nonprecious metals, gilt or silvered; manufactures of iron or steel wire not specially tariffed, manufactures of copper wire, cardboard and pasteboard, sized and unsized paper of all kinds, wall paper, raw wool and hair, artificial wool; yarns of jute, linen, hemp, and other vegetable fibers not twisted; sacks of jute and coarse jute tissues for sacks; oilcloth of all kinds, except silk; silk foulards, plain or printed; stuffs of silk or half silk, including handkerchiefs, ribbons, etc.; woolen carpets of all kinds; cotton tulle, except that for furniture; office articles and accessories for drawing and painting, not specially tariffed, except pencils.

(5) The undermentioned articles are dutiable at the increased rates stated: Fire bricks and roofing tile, unglazed, 7 kopecks (3.6 cents) per pood (36.112 pounds); woolen rags, 3.50 rubles ($1.80) per pood; paper pulp, 35 kopecks (18 cents) per pood; cellulose, 60 kopecks (30.9 cents) per pood; cardboard of wood pulp, not manufactured, 60 kopecks per pood; raw cotton, 4.15 rubles ($2.13) per pood; undyed cotton waste, 4.80 rubles ($2.47) per pood; cotton waste, dyed, 6.50 rubles ($3.34) per pood; cotton yarns and thread, an addition of 1.50 rubles (77 cents) per pood on all classes; cotton tissues, bleached, unbleached, dyed figures, or printed, and cotton velvets, an addition of 50 kopecks (25.7 cents) per funt on all classes.

Rags of all kinds (except woolen rags), formerly free of duty, are now to pay 3.50 rubles ($1.80) per pood, unless destined for the manufacture of paper; and the duty on velocipedes and their spare parts is increased by 50 per cent.

BRITISH IMPERIAL PREFERENTIAL TRADE.

On the 1st instant, Canada's new preferential tariff of 33⅓ per cent in favor of Great Britain went into effect. This is one of a number of facts bearing upon what promises to be, in the not distant future, a burning question throughout the British Empire—a trade zollverein, or preferential tariff, between and among the colonies of Great Britain and the mother country. Liverpool is vastly interested in this question. Liverpool receives more imports from the United States than does any other single port in the world; and it is also the headquarters of the Canadian trade, both for import and export. Beyond question, during recent years there has been a great development of sentiment in favor of an imperial preferential tariff; and I do not hesitate to say that this sentiment has a far stronger hold, not only among the mass of the people of Great Britain, but even among the politicians, than the party newspapers and party leaders concede. It is a very significant fact that for the last two years this question has been discussed more than any other at meetings of chambers of commerce and trade organizations of Great Britain and her colonies.

Canada is leading the way in the movement. A few days ago, Lord Strathcona, the high commissioner for Canada, with headquarters at London, published a communication in the leading newspapers of Great Britain, in which he made the offer of the free gift to schools in this country of books devoted to the history, geography, and resources of Canada; and he announced that medals would be awarded as prizes to children passing the best examination in the study of those subjects. The high commissioner frankly states in his newspaper communication that this study "ought to be beneficial, in a commercial sense, in making the products of Canada better known than at present."

The Liverpool Chamber of Commerce seems to view the proposition of an imperial preferential tariff with favor, as the other day it adopted a resolution memorializing the British Government to appoint a commission to investigate the subject.

The enormous possibilities—commercial as well as political—attaching to this question are emphasized by the recent federation of Australia and the proposed federation of South Africa, with the inclusion of the Transvaal and the Orange Free State. Another phase of the new imperialistic and preferential movement is the agitation, which is getting very strong, for a countervailing duty on imported sugar which receives a bounty. Still another phase of

the movement is the demand which has recently sprung up, and which has assumed serious proportions, that the British Government should impose an export duty on coal, or even prohibit the exportation of coal altogether, as it is feared that the coal supply of Great Britain is running short and as the coal exported goes to benefit continental countries which are commercially and politically rivals of Great Britain.

It is worth noting that, according to the annual British Blue Book, just issued, the imports into Great Britain from the United States fell off from $612,662,073 in 1898 to $583,594,573 in 1899—a decrease of $29,067,500. Imports from Canada also show a falling off, they being $99,161,544 in 1898 and $98,199,896 in 1899—a decrease of $961,648. Exports from Great Britain to the United States increased from $138,677,557 in 1898 to $169,980,793 in 1899—an increase of $31,303,236. The British exports to Canada increased from $34,869,625 in 1898 to $40,451,364 in 1899—a gain of $5,581,739. The greatest falling off in imports from the United States was in cotton, the figures in 1898 being $133,713,335 and in 1899 $93,137,671, a decrease of $40,575,664. Speaking generally, the falling off of imports from the United States in 1899, as compared with 1898, was in agricultural produce, and the gains were in manufactures.

JAMES BOYLE,
LIVERPOOL, *August 8, 1900.* *Consul.*

NEW SCHEME TO PUSH BRITISH TRADE.

There is a determination in Great Britain to keep to the front in trade, and one of the new schemes to accomplish this is to have experts in commercial matters travel over the world to lecture on British manufactures in every important commercial center. Mr. Leslie Stewart, secretary of the National Lecture Society, talked on the subject yesterday with a London Daily Mail reporter, stating that the pressure of trade competition from other countries has so increased within the last ten years that it behooves Great Britain to keep herself on the alert and to do something out of the ordinary by way of impressing foreign traders with her superiority as a great trading and manufacturing nation. He said:

Through these lectures, we anticipate increasing British trade and spreading a better knowledge of articles manufactured in this country. We hope to travel around the world and in each center where a commercial community exists to deliver an address upon British manufactures, under the auspices of the local chamber of commerce.

The subjects will be classified according to the different trades; for instance, the largest makers of mining machinery in this country wish to make known their

superiority over makers in other parts of the world and to be recognized in mining districts of America and Australia. So, on visiting these countries, our lecturer will give an address on mining machinery, and in this way place the two countries in touch with each other.

The importance of such an awakening to our trade possibilities can not be overestimated. We shall touch upon every line of manufacturing interests of importance to Great Britain.

MARSHAL HALSTEAD,

BIRMINGHAM, *August 18, 1900.* *Consul.*

IMPORTATION OF DOGS INTO GREAT BRITAIN.

The Department has received a note from the British ambassador, dated Newport, September 3, 1900, inclosing a memorandum as to the importation of dogs into Great Britain, which cancels the former memorandum on the subject.* The present one reads:

MEMORANDUM AS TO THE IMPORTATION OF DOGS INTO GREAT BRITAIN FROM ABROAD.

(1) The disease of rabies in dogs and of hydrophobia in man, which remains prevalent in almost all other parts of the world, has become practically extinct in this country, and the regulations of the board are designed to prevent its reintroduction.

(2) The importation of dogs into Great Britain from any foreign country or British possession other than the Channel Islands without the sanction of the board is prohibited by orders made under diseases of animals acts;† and the landing of a dog from abroad (whether originally exported from Great Britain or not) will, unless a license has previously been obtained, render the owner liable to a penalty of £20 ($97.33) and the possible seizure of the dog.

(3) Every person who wishes to import a dog must make application in writing for the necessary license on a form which will be supplied for the purpose, and the form should be accompanied by a letter addressed to the secretary, Board of Agriculture, 4 Whitehall place, London, S. W., explaining the circumstances under which the application is made and stating how long the dog has been in the possession and personal charge of the applicant. It is to be understood, however, that an application is not necessarily followed by the issue of a license to land the dog, and that the board can not sanction the landing of dogs which usually live abroad, but which their owners while on a visit to this country wish to bring with them.

(4) Every application must be made by the person who will be the owner of the dog during the period of detention in this country, and it should be forwarded in sufficient time to enable the board to make full inquiries into the circumstances and as to the suitability of the premises in which it is proposed that the dog should be isolated, and to permit of their decision being communicated to the applicant before the dog is embarked. Masters of vessels can not properly accept a dog for shipment to Great Britain from abroad unless the license is produced at the port of embarkation, and they are liable to prosecution if the dog is landed illegally.

(5) In order that the board may have it on record that the conditions on which alone a license can be issued are fully understood, the applicant must sign the undertaking set out in one or other of the forms.

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*See ADVANCE SHEETS No. 394 (April 7, 1899); CONSULAR REPORTS No. 225 (June, 1899).

†NOTE.—Order of 1899 imposes similar restrictions on the landing in Great Britain of dogs from Ireland.

(6) Unless the dog to be imported has, at the date of the application, been in the personal charge of the applicant during the preceding three months, the board can only authorize its landing under a license, Form A, requiring the detention and isolation of the dog for six months. Such licenses are only issued where arrangements have previously been made for the detention of the dog for that period at an isolation station approved by the board, at the expense of the owner and at his risk. At the present time, the only isolation station so approved is the Dog Sanatorium, Beddington Lane, Mitcham, Surrey, to the manager of which establishment communications respecting terms, etc., should be addressed.

(7) Dogs landed with licenses, Form A, should be forwarded in crates or hampers, and with the utmost possible expedition, to the isolation station.

(8) If, however, the applicant is able to declare that the dog has been in his personal charge for three months, he may apply for a license, Form B, which requires the detention of the dog for a period of six months on some suitable private premises, to be specified by the applicant and approved by the board, where the dog will be under the supervision of the officers of the board and of the local authority, for whose inspection it should be produced when required. If, however, the general conditions imposed are properly carried out, the board are prepared, on the production of a certificate of a duly qualified veterinary surgeon that the dog is not affected with, or suspected of, rabies, to consider applications for the release of the dog after a period of ninety days.

(9) The applicant's private place of residence is regarded in most instances as a suitable place of detention for a dog detained under a license, Form B, provided that he is the householder, and that no other dogs are kept upon the premises. Hotels, flats, lodgings, barracks, or other similar premises where the dog can not be conveniently isolated, or where the owner of the dog can not guarantee that the animal can be detained for the full period required by the board, are not regarded as suitable places of detention. For a similar reason, private residences are seldom suitable where more than one dog is to be imported. If the applicant has no fixed residence where the dog can be kept under his own charge, arrangements should be made for the detention of the dog for the necessary period at an isolation station, or on the premises of an experienced veterinary surgeon.

(10) On arrival at a port in Great Britain, and before the dog can be landed, the holder of the license is required to produce it for the inspection of the officer of Her Majesty's customs.

(11) The license requires the dog, when landed, to be taken by the nearest available route, and without unnecessary delay, to the premises specified therein, and the arrival of the dog there must at once be notified in writing to the board.

(12) Where, however, dogs admitted under a license, Form B, are landed late in the day, and the place of detention is distant from the port, the board do not object to the journey of the dog being broken by its detention at some suitable place for one night, provided that it is kept apart from all other dogs, and that the journey is thereafter completed with reasonable dispatch.

(13) The license should be retained by the person in charge of the dog, who is responsible for compliance with the conditions prescribed in the license. The license must be returned to the board at the end of the period of detention, or at once if it is not made use of.

(14) The dog can not in any case be moved from the place of detention to other premises in the United Kingdom without a further license from the board. Where the board are satisfied that exceptional circumstances have arisen which render the removal of a dog detained under a license, Form B, necessary or expedient, they are prepared to consider an application for a removal license, provided it is not proposed to remove the dog from a rural to an urban district, or from the original

premises to a less suitable place of detention. Unless the dog is to be taken from the private residence of the owner to another house in his occupation, the premises of an experienced veterinary surgeon should be specified as the place of detention, and the removal can not be authorized unless the dog can be detained at the second address for the remainder of the period of detention.

(15) Where satisfactory arrangements of the character above indicated can not be made by the owner, the dog must be detained at the premises first specified or removed to such place as the board may direct.

(16) During the period of detention under a license, Form B, the dog, when temporarily moved for exercise, as provided in the license, must be properly muzzled with a wire-cage muzzle and in charge of a competent person, and the former condition is also applicable when the dog is likely at any time to be brought into contact with other dogs.

(17) Should a dog die or be lost while under detention, the fact should be at once reported to the board, together with full information as to the symptoms preceding death, or the circumstances in which the loss took place. In the event of the dog sickening with any of the symptoms of rabies, it should be at once isolated and the advice of a veterinary surgeon obtained.

(18) A dog detained under a license of the board can not be moved to a vessel for exportation without a further license of the board.

(19) Licenses are issued by the board to land performing dogs, if it can be shown that the dogs have been trained to take part in performances for the entertainment of the public and that they are to be imported for that purpose only, and that they are under an actual engagement to perform immediately on arrival. These licenses require that during a period of ninety days dogs so admitted shall be isolated from contact with all other dogs, that they shall not be taken into any public place unless properly muzzled in the manner set out in the license, and that during that period the board shall at all times be kept informed of the premises upon which the dogs are detained. Satisfactory evidence must also be afforded that the animals are habitually kept apart from all other dogs, whether in this country or abroad.

(20) For the convenience of persons passing through Great Britain the board are prepared, in special cases, to issue licenses for the landing of dogs to be exported within a very few days. Applications for such licenses should specify the ports, the names of the vessels, the dates of their arrival and departure, and the address of some suitable place where the dog can be detained during the period that it remains in Great Britain. The license in this case should be indorsed by an officer of the vessel of departure and returned to the board by the owner. The dog can not again be landed in Great Britain without a further license.

(21) The experience of the board has clearly shown that the frequent movement of pet dogs to and from the Continent involves this country in serious danger, inasmuch as a pet dog may become infected with rabies without the knowledge and despite the utmost care on the part of its owner. It is therefore a matter of great importance to owners of dogs in Great Britain that dogs from abroad should only be admitted in instances where it has been satisfactorily established that some useful purpose will be served by their admission, or where a pet dog would otherwise be separated from its owner for a prolonged period. Pet dogs should not be taken abroad and thus exposed to the risk of infection, except in cases of real necessity.

(22) The board earnestly invite the cordial cooperation of dog owners in carrying out regulations which have been designed with a view to minimize the risk of reintroducing a very terrible disease.

STEAMSHIP SERVICE IN LONDON: TRAMWAYS.

The London papers report that the rivers committee of the city council are urging that a municipal steamboat service be established on the Thames, to better the present privately owned service, and concerning it the London Daily Mail says:

The chairman of the Thames conservancy proposes that the county council shall take over the conservancy's piers, without payment, for which the Thames Steamboat Company now pays an annual royalty of £5,000 ($24,332.50).

The services are proposed as follows at the uniform penny rates:

(1) London Bridge to Vauxhall (five minutes).

(2) Vauxhall to Chelsea, and thence to Hammersmith (fifteen minutes).

(3) London Bridge to Greenwich and thence to Woolwich (fifteen minutes).

The capital required for these services, says the report, should be put at £500,000 ($2,433,250). This allows for forty boats, to cost £7,500 ($36,498.75) each, repairs and reconstruction of piers and approaches. The annual maintenance account, to include interest and repayment of debt, working expenses, repairs, insurance, piers, and establishment charges, is estimated at £140,000 ($681,310) per annum.

The committee estimates that it will take from five to eight years to bring the service to perfection, so that the expenditure will only result in a temporary charge on the county rate.

It is further to be considered, says the report, that upon the service being completed the development of the river traffic will have assumed its proper proportions. As a point-to-point locomotive service from residential to business districts, as the means of developing riverside residential facilities and recreation sites, and as a means of parcel and small goods traffic, the service will have assumed its place among other locomotive services in London.

MILLIONS OF PASSENGERS.

The completed charge of fares from Woolwich to Hammersmith is to be 5d. (10 cents) and from Woolwich to Greenwich 2d. (4 cents). In the five intermediate stages the fare will be 1d. (2 cents). The number of passengers required per annum will be 33,600,000, which would require each boat with a capacity of 250 to carry 2,877 passengers daily. The traffic is to be drawn from the riverside population, which now gives a traffic bill (tramway and omnibus) of 209,300,000; and 33,600,000 added to this only means an increase of 16 per cent, which, considering swift boats and increased facilities, would not be difficult to obtain.

The total passengers of railways, tramways, and omnibuses in London now number 1,368,000,000, and the committee feel that it will not be difficult to divert 2¼ per cent from this number to their steamers. Taking the services together, each boat will cost on an average 15s. 11d. per journey.

The Victoria Steamboat Company's income for 1893, when the company was on the verge of bankruptcy, was £87,856 ($427,551.22).

Commenting on this fact, the report says: "If an incomplete and irregular service effective for only six months a year, with a high and complicated system of fares, can produce an income of £87,856 ($427,551.22), a complete and perfect service at cheaper fares, effective during the whole year and deliberately planned to meet the

demands of a settled community dependent upon locomotion for much of its necessities, may be relied upon to produce the amount spent upon its development and working, estimated at an outside figure at £140,000 ($681,310)."

This steamboat plan is a natural sequence of a municipally owned and managed tram service, and is a big step in municipalization, in that it is more strictly speculative. The committee believes it can make a financial success by its own expert management of an enterprise which has been a failure in the hands of an ordinary body of capitalists.

In tramway matters, when a city corporation builds tramway lines, it simply takes to itself a business in which experience everywhere has shown there is an assured profit. It debars the capitalist from a voice in the management, but, as it must borrow the money necessary, invites him to advance the money, relieving him from all financial risk; so after all it really is not municipal ownership, but municipal leadership.

The Daily Express is responsible for the statement that electric street cars (the first in London proper) will probably be "erected" under the recommendation of the tram committee at a cost of £132,000 ($642,378) on the Victoria embankment of the Thames from Blackfriars Bridge to new Battersea Bridge via Victoria street and Buckingham Palace road. Possibly also the county council will demand that the machinery, rails, trolley wires, cars, etc., be all of British manufacture. Some other British cities have done so.

For the construction of other new tramways of a length of 16¼ miles, in the territory on the north side of the Thames, and for 12 miles on the south side, the council will be asked to sanction the expenditure, respectively, on the north of £469,700 ($2,285,795.05) for works and £544,306 ($2,649,127.94) for street widenings; on the south, of £374,500 ($1,822,504.25) for construction and £449,000 ($2,185,058.50) for street widenings.

It should be noticed that for these two tramways, the immediate use of electric power is not contemplated and horsepower will suffice; but, as pointed out by the Express, "the estimates provide for rails of sufficient weight to permit of their being used for electric traction when that system shall have been adopted by the council's tramways.

The electric street-car or tramway situation here is an extremely interesting one at present, for there is an awakening in such things. If my information be correct, there are not in the whole of this great United Kingdom more than 300 miles of electric street railway in operation, not three hundred more in course of construction, and hardly this amount in addition authorized for construction by cities and private companies combined. In other words, forty millions of

people, restless, given to trade, with fair enough wages, have not in reality nor in immediate prospect 800 miles of electric railroad, urban, suburban, and cross-country combined.

To illustrate the situation, I give as follows the substance of an argumentative pamphlet recently published by the British Electric Traction Company, and select sentences and paragraphs from some tramway newspaper clippings I have on hand:

[Pamphlet of the British Electric Traction Company.]

In these days of keen commercial competition between the nations of the world, a nation which wishes to keep in the forefront of progress can not afford to neglect any opportunity for improving its means of communication. England owes much to its splendid network of railways; but unless this is soon supplemented by an equally up-to-date network of light railways and tramways, other nations will gain upon us and pass us. Every day our big towns grow bigger, and the suburbs of the one town stretch out farther and farther towards the suburbs of the next, until in some parts of England, such as the far-famed "Black Country," a whole district threatens to become one huge forest of factories and houses. Wherever such a state of things as this obtains, it is obvious that some cheap and handy means of rapidly conveying the workman to and from his work is absolutely essential to the welfare and continued progress of the community.

What is that "Black Country" of which people talk so much and know so little? It is simply a vast industrial center lying between Wolverhampton and Birmingham, having a total area of some 80 square miles and a population of over 1,000,000. In this area, towns of ten thousand inhabitants are "as plentiful as blackberries in September," and towns of twenty, thirty, forty, and even sixty thousand inhabitants are also to be found, not to mention Birmingham with its round 500,000 and Wolverhampton with over 80,000 inhabitants. In addition to its varied manufactures and teeming population, South Staffordshire possesses vast mineral wealth; it is, in short, a district of unsurpassed industrial importance. Here, if anywhere in this busy old country of ours, one would naturally expect to find an up-to-date, progressive organization for supplying the artisan and mining population with a means of rapidly and cheaply and conveniently going about its daily work.

But what do we find? An altogether inadequate tramway service—we will not so misuse the English language as to call it a tramway "system"—having a total (route) mileage of only 54 miles, rejoicing in two different gauges, worked by three different methods, and owned by no less than five separate companies.

It may be asked, If one uniform, up-to-date system of tramways all over the Black Country would prove such a great boon, why did not the existing concerns combine? The answer is a simple one—the law prevented them. All tramways in England and Scotland are subject to the provisions of the tramways act, 1870. Under section 43 of this act, any local authority may purchase the tramways within its area at the end of twenty-one years, the price being "the then value" of the undertaking. This "then value" is simply the market value of the old rails and stock, and has been called "the old-iron price."

The result of this is twofold. Since even under the act of 1870 one can not force people to invest their savings in tramways, general tramway development in England has been greatly retarded for want of capital. Then, if a tramway company does manage to get enough money to make a start with, it finds it more and more difficult, as time goes on and the day of municipal purchase approaches, to induce investors to supply the necessary cash for any improvement, such as electric traction, for instance. This is very natural; who would pay a shilling for a pipe,

if he had to sell it the next moment to a policemen for twopence? Since the law obliges a tramway company to sell its undertaking at the value of old iron, the tramway company naturally arranges matters so that at the end of twenty-one years it shall have nothing but old iron to sell.

The British Electric Traction Company, having made arrangements with all the existing tramway companies, comes before the local authorities with the following proposition: "We are willing to combine all the tramways in the Black Country into one great system, to be worked by electricity in the most modern and improved manner, if only the local authorities will postpone for a few years their right to buy the tramways at the price of old iron." The authorities can not agree, and this causes all the delay.

[The London Daily Mail, June 15.]

When the London county council took over some of the tram lines last year, it at once set about making inquiries for possible improvements. It soon saw that the horse tram car is to-day as much an anachronism as flint and steel would be. * * * The uncomfortable and crawling cars are to give way to a host of palaces on wheels, furnished in princely fashion, lit like the halls of the sun, gliding swiftly through the streets with a quick, easy motion. To travel in them will be rest and recreation. * * * The change is going to revolutionize London. Months ago the Prince of Wales, with singular prescience, declared that the one way to solve the great slum problem was to make it easy and cheap for the poor to reach the suburbs. When the workman can get from Finsbury Park to Piccadilly in twenty minutes for a penny fare, he will no longer box himself in a fetid city slum. The health of London will improve, for the country will be at almost every man's door, so easy will it be for him to get there.

AMERICA AND THE TRAM EXHIBITION.

[The London Daily Mail, June 22.]

The tramway exhibition, which is on view at the Agricultural Hall to-day and open to the public to-morrow, is a standing impeachment of British trade. The electric-street-railway business promises to be one of the most profitable and flourishing of the newer industries. * * * Yet this exhibition shows that British firms are almost wholly out of it. The trade has been largely annexed by Americans, and the little our western cousins have left has gone to Belgians and Germans. American tramway firms have come over to England, set up their works here, and are sweeping all before them. On the exhibition grounds yesterday, as the show was being put together, American engineers were seen on every side, while American exhibits faced one everywhere.

The most popular of the exhibits will probably be the conduit tram line in working order, shown by the Westinghouse Company. This firm, which has recently established large works here, has designed this conduit line especially for British needs. With the concrete foundations, only a depth of 3 feet 1 inch below the surface of the street is wanted. A new feature of great importance is that the section of the conduit only becomes electrified when the tram car is actually passing over it. By this means, two great faults of the old-style conduit are abolished.

[The London Daily Mail, June 26.]

Much of the success or failure of the coming change will depend on the form of electric traction the London county council adopts. There are dozens of methods of superseding horse traffic. Gas cars, oil cars, compressed-air cars may have their advocates; but they are not yet sufficiently developed to demand serious consideration. * * * The choice of the London county council is for all practical

purposes limited to one of two systems—the conduit (underground trolley) or the trolley. * * * One of the objections continually raised against the trolley system is that overhead wires and the standards necessary to support them disfigure the streets. It is admittedly a cheap system, easily constructed, simple and adaptable, and involving very little disturbance of the roadways. The conduit system does away with the overhead wires, and in actual working conduit and trolley cost about the same to maintain; but the conduit is exceedingly expensive to construct. It involves considerable disturbance of the streets, and is more or less liable to stoppage from floods in certain districts. * * * In London, especially in the older districts, great lines of pipes cross the streets in every direction. These would all have to be cleared so as to go below, the conduit involving an entire relaying of water mains and gas mains throughout the districts.

The gas and water pipes in England are only a few inches below the surface, not requiring the deep embedment necessary in America, and while few pipes have to be removed in America for the conduit or underground trolley, all must be moved here, and it is a question whether British cities have sewers of sufficient size and strength to meet storm emergencies, if the conduit system is used.

MARSHAL HALSTEAD,

BIRMINGHAM, *July 30, 1900.* *Consul.*

LONDON UNDERGROUND RAILWAY.

Consul-General Osborne writes from London, August 3, 1900:

The new electric underground railway in London has occupied four years to construct and cost £3,500,000 ($17,032,850), the cost per mile having amounted to £580,000 ($2,802,670). The line runs from the Bank of England, in the center of the city proper, to Shepherds Bush, a distance of 6 miles, and between those points there are eleven stations—making thirteen in all. The fare for the whole or any distance is 2d. (4 cents). The diameter of the tunnels, or tubes, is 11 feet 6 inches, and at the stations 21 feet. The stations are all higher than the level in the tunnels, the object being to gain a natural aid in checking the speed upon entering the stations.

The line was opened on Monday last, July 30, and has proved an immediate success. Many American innovations have been introduced in the general working and are appreciated by the passengers; the announcement by the conductors that the "next station will be ———," while amusing many, is much welcomed. The introduction of "choppers"—an arrangement whereby the possible loss of the passenger's ticket is obviated—is also likewise appreciated.

The success of the new railway will have immediate effect on the old underground lines, the sulphurous fumes in which have long been matter for comment and discontent.

Another point in favor of the new undertaking is that, as there is but one fare, the grades or classes (first, second, or third) of carriages, and consequent distinction of passengers, are eliminated.

The newspapers call attention to the fact that the new system has not only emptied the omnibuses, but has actually thinned out the crowds on the pavement. During three days, 260,000 passengers used the railway. They predict that in ten years London under ground will be a vast network of electric railways. Already there is projected a great belt of electric lines to encircle the metropolis, with intersecting railways to join the north and south.

The luxurious vestibule cars, of which the company has one hundred and ninety, cost £1,000 ($4,866) each, and the twenty-eight torpedo-shaped engines were built in the United States for £3,000 ($14,599) apiece.

The working expenses of the line are calculated at £150,000 ($729,975) per annum, and it is estimated that if a fair dividend is to be earned 40,000,000 passengers must travel on the railway in the year. That represents a daily average of 110,000. It is believed this will be easily reached within the near future.

ELECTRIC RAILWAY IN BIRMINGHAM.

The Birmingham city council has recently granted the tram company the privilege of using experimentally on one line the overhead electric trolley street-car system. This may be running in a year. At present, a tramway overhead pole exhibition is being given along the proposed route. A side instead of an overhead street wire will probably be adopted. The Birmingham Tramway Company is, by the way, controlled by Toronto capitalists, who came over here about four years ago and picked up at a low figure the few steam-tram lines, thinking they could obtain immediate permission to convert them into electric lines, extend the service, increase the number of routes, and profit greatly by giving this city a very much needed means of transportation; but until quite recently there has been no public opinion to assist in this matter, because the general public has been and is without the slightest conception of what a good electric-street-car system means to great cities, and there exists on the part of the municipal authorities a determination, necessarily obstructive for the present, to have a city ownership of all the street-car lines.

Among the difficulties to be encountered under the latter, not the least serious is the increasing difficulty to command money for public purposes at the extremely low rates hitherto current. Up to

three years ago, it was possible to sell the bonds of the best-managed British cities on a 2¾ per cent basis at par, while nearly all cities were able to obtain money in unlimited sums at 3 per cent. The late treasurer of Birmingham, Mr. W. R. Hughes, who died in November last, having been twenty-seven years in office, gave it as his opinion that English cities would never again see such cheap money, while the chairman of the finance committee, in a speech in the city council, recently expressed the same opinion. The lowest rate is now 3⅛ per cent and the average not far from 3½ per cent, with a continual tendency to increase.

During the recent month Nottingham, one of the most progressive of British cities, has been asking only 95 for a new 3 per cent loan, while Bristol has been asking 97 and the London county council 97½, and Manchester is advertising in the Times offering to borrow at 3⅛ per cent, or, as it is put here—in a long-hand way—at £3 2s. 6d. per cent.

It would be hard to say how much of this is due to the rapid growth of local indebtedness or how far it has been brought about by the fear of the municipalizing movement. The most forcible argument of the advocates of municipal ownership has been the fact that cities could borrow money for great undertakings at much lower rates of interest than private corporations. The success of municipal ownership in one thing quickly brings forth demands for municipal ownership of everything else in sight, and this fear of the municipalization tendency exists very largely with serious thinking people. I feel sure their views would find an active public expression if it were realized that the ultimately perfect and complete electric-street-car system for Birmingham would mean the employment of from three to four thousand—perhaps more—additional men as public servants. The statement of one who had seen all the best electric-street-car services in the United States and on the continent of Europe, that thousands of employees would be needed to handle a Birmingham tram system of the same proportional development, and that this development was sure to follow an introductory electric system, would undoubtedly meet with the disbelief and derision of the unknowing here. Equally absurd would the Birmingham gentlemen who drive to business in their own vehicles think it if it were asserted that they would, soon after the introduction of modern street cars, abandon their carriages to their wives for purposes of display and catch a tram car whenever they come to town, and that there would be even a larger night attendance at their fashionable clubs.

The facts in the experience of cities in other civilized countries have absolutely no value for consideration in Great Britain.

Glasgow sent a commission to study the street-car systems of the cities of the United States, Germany, France, and Austria-Hungary, and after its return and favorable report, built merely an experimental line. The experience of the rest of the intelligent world meant nothing to the citizens of Glasgow, though the necessity of the Glasgow mind for experimenting with what others had perfected would cause years of delay in the completion of a proper tramway system. Birmingham cares nothing for the newly acquired tramway experience of Liverpool, and is not at all interested in the fact that in neighboring little Coventry there is rather a nice tramway line, or that in the adjacent Black Country there are several rather effective lines. In the Birmingham newspapers the other day, the guard rail of an experimental open summer car of the one cable line is described as a novelty, and the fact that the conductor collects fares along the footboard is thought a queer but new proceeding. It is hard to see how a car builder could base his ideas on the type of car we know and produce anything as ugly, on lines so inartistic, as is this new car. There seems to be no conception of the fact that a tram car can be made as attractive a feature of street life as is the best appointed ladies' brougham. Tram cars all over Great Britain are painted a dull-red mud color, intended for chocolate. From the reports of the appearance of our bright-colored street cars they fear a circus effect, and yet this is all a matter of custom. These dull paints were used here originally because they were thought economical, and it is not recognized that bright colors are now so chemically made that they are really more permanent, and that cars painted light inside and bright outside create a standard of cleanliness important in tramway operations.

The calculations in tramway matters in Birmingham include only the existing lines, and there is no anticipation that the number of these will, as all experience shows they must, be multiplied many, many times, through the force of a public opinion which is bound to come after the people have experienced the pleasure and profits of even one electric line. Thirty to forty electric lines using from twenty to fifty cars each and 200 miles of electric service is, of course, "absurd." This public opinion is already asserting itself to the embarrassment of the city authorities of Liverpool, several creditable street-car lines having been in operation there for some time. The people of those sections of Liverpool not now enjoying the benefits of the new wonder and delight have a several-thousand-volt impatience to be taken care of; but the legally financial restrictions of the city allow of only the step-by-step plan of building one line at a time, although the financial returns from the existing lines would be quite sufficient to the ordinary courageous capitalist to warrant

an immediate and wholesale extension. The people of Liverpool have already manifested, by letters in the local papers, impatience at the speed restrictions imposed by the (national) Board of Trade, and they may soon think, as we are credited with doing, that "if people are foolish enough to get in the way of rapidly moving street cars, they can not complain after they have been killed."

There are two other difficulties besides the present high rate of interest in the way of the municipalization of the Birmingham tramways. In the first place, the authorities have felt that they must wait for the expiration of the tramway companies' leases, the shortest expiration period being five years, the longest eleven. In the second place, Birmingham is surrounded by a network of small suburban towns, with an approximate population of 500,000, thus making a district of a million people, each with big aldermanic notions on this tramway question; and the need for harmonizing these tramway plans is apparent enough, but the accomplishment is difficult. Though the Toronto capitalists have been disappointed and may never attain their great ambition, the singular fact is that their investment in the present antiquated steam trams is a profitable one. I believe I am correct in stating that in the case of one or two lines, their leases of the suburban portions run longer than their leases of those parts of the lines in Birmingham proper. This is an awkward position, but probably to the advantage of the tramway people, who can use this circumstance for an ugly warfare.

In addition, the people of Birmingham must seek Parliamentary authority to municipalize, and to have a bill passed for such purposes is not only expensive in time—sometimes taking years—but in money.

MARSHAL HALSTEAD,

BIRMINGHAM, *July 2, 1900.* *Consul.*

STREET CARS IN GLASGOW.

The street-car system of Glasgow is owned and operated by the city under the direct supervision of a committee of the town council. The report for the year ended May 31, 1900, shows that the total length of double track operated by the city is 41 miles 1 furlong 178 yards over 42 miles 2 furlongs 161 yards of streets, making a total length of single track of 83 miles 3 furlongs 119 yards.

The gross capital expenditures for the system since 1894 (independent of operating expenses) have been $5,164,975, and the present indebtedness is $4,061,806. The capital invested is $4,559,502. Of the 41 miles of double track, 5 miles have electric traction, the

rest being operated by horses. The total receipts of the system during the year were $2,286,850. The working expenses were $1,676,412, leaving a balance of $610,438, of which there was expended some $84,000 for interest on capital, $57,501 for sinking fund, $156,096 for depreciation written off capital, etc.

One item of $60,000 consists of payments made to the general revenue fund of the city, which is in lieu of the amount which the city would receive in taxes, it is presumed, were the system operated by a private company. The balance goes into the reserve fund.

There are 3,400 persons employed, including 100 clerks. The general manager receives $6,800; the chief engineer, $2,400; the electrical engineer, $2,000; and the mechanical engineer, who has charge of the power station, $1,216. Point boys receive 28 cents per day; trace boys, from 40 to 52 cents per day; car cleaners, from 88 cents to $1 per day; drivers, conductors, and motormen, from $1 to $1.12 per day. These rates apply to Sundays and week days alike.

The rolling stock consists of 384 horse cars, 132 electric cars (47 only of which are now running), 17 omnibuses, 39 lorries, and numerous carts, wagons, and vans. There are 4,411 horses.

Work is now progressing, with the object of changing the entire system to electric traction, which it is hoped to have completed within the next eighteen months. No underground conduits will be used, according to the present plans.

Fares range from 1 cent for first half mile to 2 cents for a mile; the longest ride is 6 miles, costing 6 cents. No transfers are issued, and tickets are not used.

The committee of the town council having supervision of the tramways receives no compensation. For that matter, however, no member of the city government of Glasgow, including lord provost, town councilors, and bailies (police judges), receives compensation.

The city of Glasgow has a population of about 850,000 and spreads over an area of nearly 12,000 acres.

There are no electric or other tramways extending out of Glasgow to other towns or cities. Within the city is an underground cable road which makes a circuit of about 5 miles and is owned and operated by a private company. The rate of fares on this road is about the same as that prevailing on the surface roads.

SAMUEL M. TAYLOR,

GLASGOW, *July 27, 1900.* *Consul.*

AMERICAN SHIRT WAISTS AND UNDERWEAR IN ENGLAND.

Until two days ago, there had been no hot weather here, and the phenomenally backward season had an injurious effect on the business of jobbers and shopkeepers who had stocked summer fabrics and clothing. American-made ladies' shirt waists have been a source of particular anxiety, as the best shopkeepers had this year very heavy stocks of them. A few consignments of these shirt waists were put on the British market in the summer of 1898 and found a ready sale, for in neatness of fit and novelty of design they were very attractive and far less in price than blouses of English or German make. In the spring of 1899, shopkeepers generally gave to dealers in American shirt waists what they considered were exceptionally large orders, but the summer demand was far greater than anticipated. Consequently, shopkeepers put in still larger stocks for this summer's sale, but the unseasonable weather has so far interfered. There probably has never been an article of ladies' clothing which has so completely dominated the British market.

An American storekeeper's capital is in his stock, as he does not give long credit, while the capital of the British shopkeeper is represented on his books, for he gives very long and free credit, and therefore can not have a big stock. On account of this small-stock custom, there still exists in England a type of jobber or small wholesaler long since wiped out in the United States, and manufacturers here are willing to accept small orders and to guarantee the filling of repeat orders.

The American manufacturers of shirt waists have done nothing in the way of meeting small-order demands, and, while they have deserved their two seasons' success, owing to the merit of their articles, they must not expect the sale to continue unless they hereafter take care of the trade in the way customary here, for the British manufacturers have had their lesson and will compete next year. They will sell in small lots, will call the article a blouse instead of a shirt waist, and their salesmen will appeal to the shopkeepers to assist British industries by buying of those who employ British labor.

It is extraordinary that British shopkeepers have for two seasons stocked heavily with American blouses, and it can be attributed only to the great superiority of the American article; but they will not stock American blouses again if they can get British-made blouses of anywhere near the same attractiveness in small lots and with a guaranty that their second orders will be executed.

I have heard that one London merchant had sales of American shirt waists totaling £57,000 ($277,390.50), and a salesman for a big wholesale house who traveled with me in a railway carriage the other day said that two-thirds of his blouse sales this year had been American. He had also sold some thousands of American braces (suspenders for men) and said it had made him smile when he met well-to-do Americans traveling here who, when questioned, boasted they wore "imported suspenders." He inspected, at my suggestion, the suspenders I was wearing (bought in New York for 50 cents) and said that their equal could not be produced here or in France for that price at wholesale.

An American manufacturer who has called at the consulate told me that, finding several years ago he could no longer compete in common cottons at his New England mill with the cheap labor of North Carolina, he sold his old machinery to a company then building a Southern mill and studied the processes of suspender manufacture here and on the Continent. He boasted that while the British manufacturer had only about eighteen styles, he manufactured one hundred and fifty-eight styles his first season, and claimed his suspenders were better and cheaper, for he had adopted all the good processes, rejecting those he thought merely traditional, and had put in labor-saving machinery, some of which he had invented, the rest being designed by clever men whom he employed for the purpose.

American manufacturers of all garments for ladies' underwear of the many cotton and semisilk kinds can, if they adopt the proper merchandising methods, more than duplicate the success of the shirt-waist manufacturers in Great Britain. By a well-planned campaign, they could simply take command of the market and furnish shopkeepers with articles which would, I am certain, be a revelation to their customers. American ladies living in England frequently write home for underwear. Sometimes they have them made here with their old garments as models, but even then are seldom satisfied with either the fit or the needlework. No. 40 cotton is used here where No. 60 serves in the United States, and there is absolute disbelief of the statement that "200 thread" is sometimes used. Sewing is being carefully taught in the public schools, and as a merit reward the most proficient are permitted and encouraged to use No. 100 cotton thread. There would at first glance seem to be advantage in using No. 24 thread for sewing on buttons—it is used here for that purpose—but think what holes must be made in delicate fabric with 24 thread and a needle big enough to carry it.

American ladies have difficulty in procuring hose of full length

and reasonable shapliness. The type of hose in general use is short—a knee length only—as side garters are little known or used, though a few of the better-class stores now keep the "velvet clasp;" but there is positively no shaping for foot or ankle.

Men's black cotton socks I find it impossible to buy in shops here with tops at all elastic. I am told that the fast-black dye for cotton was the discovery of an English chemist; that English hose manufacturers would not at first buy his secret; that the Germans did and built up a trade all over the world. It may not be out of place here to state that several years ago one of the Barbours of thread-making fame told me the discoverer of a fast-black dye for linen thread could command his own price. Examine the thread holding the buttons in men's clothing, and you will see that after a short time the black disappears, and even new linen thread has not sufficient depth of color.

MARSHAL HALSTEAD,

BIRMINGHAM, *July 18, 1900.* *Consul.*

AMERICAN SKILLED LABOR AND MACHINERY IN BRESLAU.

R. Dorndorf's shoe factory, of Breslau, has engaged an American and his wife to take charge of and reform the works. The factory, the largest in Germany, employs 450 hands and is entirely equipped with American machinery, as follows: Four dieing-out machines, 2 channeling machines, 2 rolling machines, 2 randing machines, 1 box-toe shaver, 1 rough rounder, 1 automatic leveling machine, 5 McKay sewing machines, 1 heel-edge trimming machine, 1 universal slugging machine, 1 McKay slugging machine, 4 Millen twin-treeing machines, 1 Rockingham heel-finishing machine, 8 McKay lathing machines, 3 Goodyear welt machines, 1 Gordon tacking machine, 1 beating-out machine, 1 sole-laying machine, 1 cementing machine, 4 Goodyear stitching machines, 3 edge-trimming machines, 2 heel-scouring machines, and 3 buffing machines. All brushes, bottom-finishing material, ink, stains, paints, etc., are of American manufacture.

The American is engaged for one year at a salary of $90 per month; his wife receives $36 per month; and traveling expenses to and from the United States are paid. The wages paid in the factory to the different hands vary from $4.28 to $5.95 per week.

Before the American took charge the factory produced 142 pairs of shoes per day. After the lapse of only eleven days, it turned out 462 pairs, or over three times as many as under the German manager,

with the same machinery and the same number of hands. They expect to produce, by September 1, over 500 pairs of shoes per day. As the men turn out more work, they receive more wages, these having been increased already 2 marks (48 cents) per week each; and when they produce over 500 pairs of shoes per day, the wages will again be increased 48 cents per week. The German mechanics in the factory are pleased with this way of doing business.

Another American is employed here by the phonograph factory of H. Meinecke. Another, a technical engineer, is engaged by the iron works at Laurahuette, and an American firm is putting up electric apparatus by American mechanics in Kattowitz. American machinery of all description is being introduced into this district, and if our manufacturers would send traveling men speaking German to this industrial center, or establish agencies here, they could build up a good trade.

C. W. ERDMAN,
Consul.

BRESLAU, *July 27, 1900.*

UNITED STATES SAMPLE ROOM IN ZURICH.

I take pleasure in informing the Department that a practical way of introducing American goods into Switzerland has at last been evolved and will be carried into execution in the near future. The writing of letters, distribution of circulars, etc., is useless in foreign trade. An agent, understanding the business habits of the people and the kind of goods desired, must be on the ground in person, not only for a day or two, but all the year round. Zurich is the commercial center of Switzerland and a sample room here will be of great advantage to American manufacturers.

Mr. W. A. Steinmann, a native of Switzerland, who has spent six or seven years in the United States—a practical and successful business man—is willing to devote a few rooms as sample apartments for American goods, and to exhibit them to the best advantage. I prefer to give his own language as to his plans and intentions:

In May next, I shall move my present business into buildings which are much larger—so large that they would be sufficient to make a beginning in the above-mentioned business. I have four traveling clerks and five agents that go to every corner of Switzerland. Therefore a beginning would be made with little additional expense, and if I should not succeed there will be little lost. However, taking the matter in hand as I am used to doing trade, I am sure that I can build up a business worth having. The name of the firm would be "First American Import House for Switzerland, Zurich;" general manager, William A. Steinmann. Naturally, it would have my personal guaranty and responsibility. I shall take the general agency for the whole of Switzerland of the most powerful and largest manufacturers (not merchants) in the United States; they must all be A1 firms that can compete with

anyone in the United States, and they must agree not to enter into business relations with any other firm in Switzerland. They are to send me all the samples required to give a clear idea of their articles, free of charge and delivered to my store. I shall not confine myself to any special line of goods, but will handle all salable articles, such as chemicals, wood, leather, shoes, tools of all descriptions, hardware and machinery, metals, minerals, food stuffs, inventions of all kinds, etc. I agree to open a large and fine exhibition of samples, to advertise them extensively, and to introduce the goods into our markets. My sales at the beginning would be on commission, and the manufacturers would have to ship their goods to the buyers with direct invoice, as the new firm will not take any responsibility for pay; but being a business man who knows the financial standing of almost everybody, and having 5,000 customers in my own business, loss is absolutely excluded. The firms that I represent as sole agent in Switzerland must accommodate themselves more or less to the customs prevailing in our country if they want to succeed, *i. e.*, they will have to sell three or six months' time against draft. The great mistake American exporters make is that they always want to be paid cash. All European exporters to the United States give trustworthy firms credit, and that is what the latter will have to do, too, in order to establish a large foreign trade. It is the custom of this country.

Such a course as outlined above is the only proper way to introduce and sell goods in Switzerland. I trust that our manufacturers will meet the requirements.

A. LIEBERKNECHT,

ZURICH, *August 23, 1900.* *Consul.*

OPENING FOR AMERICAN FOLDING BEDS IN SOUTH GERMANY.

A careful study of the domestic conditions of South Germany reveals the fact that American manufacturers of folding beds have made no successful effort to introduce them into this country.

A conference with German tradesmen who have lived for years in the United States and England sustains my own opinion that folding beds at low prices, simply made, would find a ready market here. There would probably be a larger call for single than for double beds. They should be devoid of expensive ornamentation, and care should be taken to have the designs free from carving, as there is a heavy duty thereon, the Government refusing to make any distinction between hand and machine work. The mirrors should be supplied here, as well as castors, weights, etc., that make expensive freights, and can be furnished here as advantageously as at home.

There are export dealers in Munich who are ready to make a market for folding beds in South Germany, but it would be necessary to supply models.

So far as this office knows, the only folding beds in use here are iron frames, folding into small settees and beds, and ordinary iron

bedsteads for servants. With such articles I can not hope to see American goods compete successfully, but the luxurious American folding bed needs only to be shown to be appreciated.

There ought to be a ready market for folding beds combined with bookcases or wardrobes, especially the latter, as German homes are not supplied with closets, but are wholly dependent on wardrobes. The introduction of the simpler sorts might ultimately open up a market for our expensive styles.

JAMES H. WORMAN,
Consul.

MUNICH, *August 1, 1900.*

AMERICAN SHOES IN GERMANY.

In reply to an inquiry from an American trade journal as to the probability of introducing American shoes into Germany, I have the following to say:

The subject of introducing American shoes into Germany has often been written upon by United States consuls. It seems to be the general opinion of those who have looked into the question that there is a market in this country for American shoes. True, during the past few years the trade in shoes has increased, but to nothing like the extent it should have and that it will in due course of time. Why the sale of our shoes in this country has not assumed any great proportions is, in my opinion, due to the following reasons:

The first and perhaps the most important one is that, up to within a short time ago, the large shoe factories in the United States were not in a position to consider entering into the export business. (I make this assertion because two years ago a gentleman in New York City was desirous of importing shoes into this country and wrote to the largest shoe factories in the East. Each factory in turn replied that it was not in a position to consider any foreign business, as the orders on hand were for more than could be turned out.) The demand in this country has been created by Americans residing abroad and by those Germans who have become familiar with American foot wear. This has compelled certain shoe dealers to carry in stock a small number of American shoes. The prices asked for these shoes are in most cases too high and out of all proportion to their actual value. It may be that the shoe merchants have to pay more for these shoes because they are compelled to buy through a commission house; but in any event the additional cost per pair, including duty, freight, commission, and insurance between this country and New York, should not exceed 25 cents. In spite of this fact, $2 and sometimes $3 more than the same shoes

would cost in the United States are asked. The German shoe dealer who handles our shoes appreciates the fact that those who insist upon wearing the graceful and easy American article would rather part with a dollar or two more than be forced to buy a poor German substitute. As for Germans, none but the rich would even think of asking for American shoes, because they have learned the exorbitant prices demanded for them.

The people of this country have radically wrong ideas about everything of American manufacture. The masses are taught by the energetic and patriotic "home-trade" shopkeeper that a manufactured article, to be expensive, has but to come from the United States. So it will be seen that American shoes are systematically kept out of the reach of the people by the dealers putting up the prices.

I have endeavored to explain why shoes have not been sold in this country; now I shall attempt to point out how they can be successfully introduced and sold in large quantities.

First of all, I take it that the conditions at home have changed since two years ago, and the time has come when American shoe manufacturers are ready to consider the export field in a serious way. What I have to say in general with regard to importing shoes into this country from the United States applies to many other lines of our goods as well. It must be considered that the trade in American shoes in Germany is yet in its infancy; that our foot wear is practically unknown to the masses.

Our great Western pork-packing establishments would not put their agencies for Europe into the hands of those who sell German pork; nor would a Connecticut watch company give its European agency to a Swiss watch manufacturer. The German or Swiss could not help discriminating and would sell his own products first. Shoes can not be sold in this country in any large quantities as long as they are placed in the hands of German shoe dealers, who not only can buy shoes on better terms from factories in this country, but who, without doubt, have a great amount of commercial patriotism, a quality hardly known in the United States.

American shoe dealers must work together in their efforts to secure a hold on foreign markets. The day for underselling one another and cutting each other's throats has passed. To deal with the export business, a mutual understanding must be reached.

The people of this country in buying shoes consider, first of all, the price, and therefore we must not expect to sell the high grades of shoes here; what is wanted is a cheap shoe. To sell low grades of shoes, it seems to me the best plan would be to establish a large warehouse in Hamburg or Bremen and open American shoe stores

in Berlin, Hamburg, Leipzig, Dresden, and Munich. I am quite sure that, were our merchants to adopt some such plan, they would not only be able to successfully compete with shoe dealers of this country, but that merchants in small cities would be compelled to offer our shoes for sale at the regular retail prices.

BRAINARD H. WARNER, Jr.,
Consul.

LEIPZIG, *July 20, 1900.*

OHIO COAL IN GERMANY.*

The following paragraph, summarizing the results of a test of American coal by the management of the State railways in Bavaria, is translated from the Allgemeine Zeitung, Munich, July 28:

Experiments with American coal have been made during the past week by the managers of the Bavarian State railways. The coal was from mines in the State of Ohio and resembled in many respects German coal from the Ruhr district, although it was somewhat lighter and had, besides, the advantages that it made no slag (cinders), but burned to the last atom into ash and created very little smoke. The locomotives worked admirably, and a locomotive heated with such coal is prepared to make a very long run. These advantages are, however, to be offset by the very high price of the American coal. It costs per ton delivered at Munich 26 marks ($6.19), while the Ruhr coal can be had for 18 marks ($4.28) per ton. There is also to be considered the fact that the American coal, during its four weeks' journey and repeated transshipments, loses a considerable percentage. At the mines it is loaded on cars, at the seaport it is put on shipboard, at Hamburg or Bremen it is again loaded into cars—by all of which it is broken and suffers a considerable loss in weight. In consequence of all these disadvantages, the general use of American coal on German railways is under present conditions impossible.

This may be true as far as concerns the Bavarian railways. In order to reach Munich, American coal must be shipped by rail across the entire German Empire. This, after crossing the Atlantic at the present exorbitant freight rate, naturally puts it out of reach as a railway fuel in the interior of the Empire.

The important fact revealed by the Bavarian experiments is that Ohio coal is recognized as superior to the best German coal for locomotive fuel; in other words, that it belongs to the highest class of steam coals, and its present prohibitive cost in this country only shows the necessity of a new class of colliers under the American flag which will land bituminous coals from Pennsylvania, Ohio, Virginia, and Alabama at European seaports for a net selling price of $4.50 to $5 per ton.

FRANK H. MASON,
Consul-General.

BERLIN, *August 2, 1900.*

*A report covering the same information has also been received from Consul Worman, of Munich.

A NEW WAY TO INCREASE OUR EXPORTS.

In my replies to inquiries from manufacturers in our country as to how to gain foreign markets for their products, as also in my reports to the Department, I have impressed upon our exporters the necessity of personally studying the wants of foreign markets; of meeting the usual terms of credit, time, and place of delivery, standard of weight and measure; of knowing the language of customers; of combination in foreign trade, etc.

There is another mode which promises splendid returns for those employing it, which will also stimulate our export trade. This consists in establishing American department stores in the large European cities.

In Germany and most other continental countries, there are large retail warehouses and stores which sell different lines of dry goods and clothing for female wear. Department stores on the order of our own, containing almost everything for human needs, are hardly known here; consequently one finds in an European city hundreds of retail stores carrying small stocks and selling articles at high prices. I think department stores would find conditions more favorable here than at home, in amount of sales and return on the capital invested; but the importance of the plan consists in the immense impetus they would give to the sale of American specialties—household articles of all kinds, clothing, kitchen and iron ware, small machines, tools and instruments, toys, carriages and vehicles, office and dwelling furniture, fruits and meal, etc. I am confident that such a concern established in Frankfort could within a few years sell American specialties alone to an amount of $3,000,000 to $4,000,000 annually, and distribute further quantities by giving agencies to leading dealers of interior towns and cities. In shoes alone, it could transact a large trade. Our manufacturers need then but offer their products to the home purchasing office, in order to do a foreign trade.

SIMON W. HANAUER,
Vice-Consul-General.

FRANKFORT, *August 31, 1900.*

KRUPP IRON WORKS.

The annual report of the chamber of commerce for the district of Essen contains statements concerning the cast-steel works of Frederick Krupp. These comprise the following: Cast-steel works, at Essen; Krupp steel works, formerly F. Asthöwer & Co., at Annen, in Westphalia; the Gruson works, at Buckau, near Magdeburg; four

blast furnaces at Duisburg, Neuwied, Engers, and Rheinhausen (this latter consists of three furnaces with a capacity for each of 230 tons per twenty-four hours); a foundry at Sayn; four coal mines (Hanover, Saelzer, Neuack, and Hannibal), with interest in other coal mines; more than 500 iron mines near Bilbao, in northern Spain; shooting grounds at Meppen, with a length of 10⅝ miles and a possibility of extension for 15 miles; three ocean steamers, several stone quarries, clay and sand pits, etc. In addition, the firm of Frederick Krupp operates the Ship and Machine Stock Company Germania, at Berlin and Kiel, under contract.

The most important articles of manufacture of the cast-steel works at Essen are cannons (up to the end of 1899, 38,478 had been sold), projectiles, percussion caps, ammunition, etc.; gun barrels; armor plates and armor sheets for all protected parts of men-of-war, as also for fortifications; railroad material, material for shipbuilders, parts of machinery of all kinds, steel and iron plates, rollers, steel for tools and other purposes. The steel works in 1899 operated about 1,700 furnaces, forge fires, etc., about 4,000 tool and work machines, 132 steam hammers of from 200 pounds to 5,000 metric tons force, more than 30 hydraulic presses (among them 2 of 5,000 tons each, 1 of 2,000 tons, and 1 of 1,200 tons pressure), 316 stationary steam boilers, 497 steam engines with an aggregate of 41,213 horsepower, 558 cranes of from 400 to 150,000 tons lifting power. During the last year, the iron mines yielded an aggregate of 1,877 tons of ore per day. The coal production from the mines belonging to the Krupp Company (excepting the Hannibal) amounted, on an average, to about 3,738 tons for each working-day.

The consumption of coal and coke in 1899 was as follows: In the cast-steel works at Essen, 952,365 tons; in the other works and on the steamers of the company, 622,118 tons; in all, in round numbers 5,000 tons per day. The consumption of water at the cast-steel works in 1899 was 15,018,156 cubic meters, which equals about the consumption of the city of Frankfort with 229,279 inhabitants. The consumption of gas in the steel works at Essen was 18,836,050 cubic meters in 1899.

The electrical power plant of the works at Essen has three machine houses with six distributing stations, and supplies 877 arc lights, 6,724 incandescent lamps, and 179 electric motors.

For the traffic of the works, railroad tracks of standard gauge of about 36 miles are laid, which connect with the tracks of the main railroad station at Essen. Sixteen locomotives and 707 cars are operated on the grounds. In addition, there are narrow-gauge tracks of 28 miles, with 26 locomotives and 1,209 cars.

The telegraph system of the steel works has 31 stations, with 58

Morse telegraphic instruments and 50 miles circuit. The telephone system has 328 stations, with 335 telephones and a circuit of 200 miles.

On April 1, 1900, the total number of persons employed in the different works was 46,679, viz, 27,462 at Essen, 3,475 at the Gruson works of Buckau, 3,450 at the Germania works at Berlin and Kiel, 6,164 in the coal mines, and 6,128 at the blast furnaces and on the testing grounds at Meppen, etc.

RICHARD GUENTHER,
Consul-General.

FRANKFORT, *August 2, 1900.*

CRITICAL SITUATION IN BRITISH IRON TRADE.

The Birmingham Daily Post summarizes the iron situation in this country, and in the Midland district particularly, in the following editorial:

In view of the present critical situation of the iron trade, caused by the collapse of demand on the one hand and the great rise on the other in the cost of labor and fuel, it can not be said that the conference held in Birmingham yesterday by the consultative council of the National Federation of Ironmasters was convened a day too soon. For nearly two years past the trade has enjoyed an unwonted measure of prosperity, and both in the home and export departments consumptive demand in spite of gradually advancing prices has been large and increasing; but during the last two or three months there have been unmistakable signs that the "boom" is practically exhausted for the present, and the last advance, apparently, has been the proverbial feather that breaks the camel's back. For the month of July our exports amounted only to 267,143 tons, against 370,014 tons for July, 1899, and 281,194 tons in 1898. For the first time for many months, moreover, there is a reduction of values, which have been, for the same month, £2,558,116 ($12,449,071.51), as compared with £2,631,313 ($12,805,284.21) in 1899. All the symptoms, we may add, point to further and greater reductions under both heads for the month which is now drawing to a close, although there is abundant evidence of large consumptive requirements in all parts of the world. The obvious explanation of the matter is that prices have advanced too rapidly, and consumers flatly refuse to pay them—at all events until they are convinced of their probable stability. That, necessarily, is a work of time; and, while the grass grows, we know the steed, however robust, is apt to starve.

What, then, is to be done? The ironmasters declare that they are powerless in the matter. Some advance they were certainly entitled to, as Sir Benjamin Hingley pointed out yesterday, after the many lean years they have lately experienced; but the greater part of the rise from which the trade is now suffering has been forced upon them, in the first place, by the higher wages to which the work people have become entitled under the sliding scale and, secondly and principally, by the enormous advance in coal which is crippling our industries all round. Sir Benjamin Hingley is himself a coal owner, but he does not hesitate to condemn the short-sighted rapacity of his fellow coal owners in clapping shilling after shilling upon the price of fuel in reckless disregard of consequences. There is many a true word uttered in joke, and if a few large coal-consuming firms were willing to act seriously upon

Sir Benjamin's suggestion and "go on strike" for a few months, it would have more effect, we think, than any arguments or formal resolutions in bringing coal owners to their senses. The meeting yesterday, however, was evidently not a combative one—not in favor of heroic remedies—and after a sufficiently protracted discussion of the general question, they came to the conclusion to leave the coal owners to pursue their own devices, and contented themselves with a pious expression of opinion that the price of iron should be maintained. That is a resolution of course, which binds nobody, and which is likely to have as much influence upon the market as an old nursery rhyme. Prices in this district, at all events, are not being maintained, and in spite of the advances in coal and wages many ironmasters will be unable to maintain them, because they must get orders, even at a slight loss, to keep their works going, or incur a much heavier loss by closing their works. American competition, moreover, is a serious factor to be reckoned with, though Sir Benjamin Hingley is evidently of opinion that it is overrated; and if the importation of American iron, or rather mild steel, continues to increase at the rate it has recently done, it must cause in time a considerable displacement of English iron and a corresponding diminution of our coal consumption, which should soon convince coal owners of the folly of their ways.

MARSHAL HALSTEAD,

BIRMINGHAM, *August 23, 1900.* *Consul.*

DEPRESSION IN EUROPEAN TEXTILE INDUSTRIES.

As a whole, the manufacturing business of Europe seems to have entered on a period of severe depression. The causes are such, however, as to permit the belief that its duration will not be very great.

Reports from Bradford and other textile centers of England state that factories have generally been forced to reduce their product on account of scarcity of orders. In one instance, thirteen cotton-spinning concerns, with over a million spindles, recently resolved to suspend operations for two weeks, to check the overstocking of the markets with unsalable goods. Doubt is expressed whether this temporary suspension will be sufficient to appreciably relieve the situation. The disturbance in China is assigned as a partial cause of the manufacturing depression in the British Isles.

From many parts of Germany come reports of stagnation in manufacturing industries, more expecially in textile branches. Rhenish Prussian factories and those in some districts of Saxony seem to be most affected. Thousands of looms and spindles are idle. As indicating in some degree the extent to which the German textile industry has lost ground this year, it is published that in the first six months of 1900 the imports of wool into Germany declined 20 per cent in quantity and 45 per cent in value, as compared with the

corresponding period of 1899. The loss in business is slightly mitigated by the receipt at various Saxon textile factories of large orders for underclothing for German soldiers destined to China.

The Chinese imbroglio is charged with but little share in the causes of the German industrial depression. German textile exports to the Orient have been too small for their utter extinction to account in any marked degree for the present contraction of business. The cause is generally assigned to the universally discouraging state of the textile markets, due mainly to overproduction during the prosperous season of 1899. The future looks sufficiently dubious to deter anyone from venturing at present into large contracts of any sort.

In Polish Russia, the production of the textile factories has decreased 70 per cent this year, in comparison with 1899. Some large firms have failed, with disastrous consequences to creditors. No causes are stated in the current reports from that country.

In Austria there is just now much complaint in textile circles, but the situation is better than in other parts of Europe, if reports are unexaggerated. In the direction of the United States, the linen trade of Bohemia is unusually large—the value of exports thus far this year showing an increase of 30 per cent, in comparison with the corresponding period of 1899. As a whole, however, the textile business of the Empire is unsatisfactory at present, the causes named being the South African and Chinese wars and overproduction. But it is admitted that the situation must be worse before it equals that of some other European countries. Last year was a remarkably prosperous season for the Austrian textile industries. Previously, dull times had closed some factories, leaving to the survivors a larger volume of business than usual. The prosperity of 1899 caused new factories to be projected, but so far they have not served, by dividing orders in this duller year, to disastrously affect the older concerns. Prices of all kinds of Austrian textile products have been increased during the past year; and though a part of this increase has gone to pay the enhanced cost of raw material, on the whole the manufacturers have been much strengthened by the higher prices of their products.

With the unsettled state of the Government as an ever-present disturbing factor, it is surprising that trade conditions in Austria should be even as good as those of other European countries at this time, instead of being rather better, as they apparently are.

FRANK W. MAHIN,

REICHENBERG, *August 17, 1900.* *Consul.*

TEXTILE CONGRESS AT BERLIN.

At the meeting of the international textile congress at Berlin, July 16, 1900, Mr. Achille Lepers, delegate of the Textile Syndicate of Roubaix, reported as follows upon the condition of the textile industry in this region:

The many strikes at Roubaix have assured to workmen, since the passage of the Millerand-Calleard law, the same, or nearly the same, wages for eleven hours' work that they once received for twelve hours. Wages for wool combers are low, varying from 2.25 to 4 francs (44 to 77 cents) per day. Night work still continues, boys working at night and women and children taking their places during the day. It is the least remunerative of the different branches.

The mean wage for cotton and wool spinners is 5 francs (96.5 cents) and for rattacheurs (fasteners) 3 francs (58 cents). Women employed for the same work earn from 2 to 2.25 francs (39 to 44 cents).

The weaving branch is oversupplied, from the fact that, as the work is comparatively easy, parents prefer it for their children, and this creates a superabundance of labor. There are at least three months in the year when the looms are idle.

Dyeing is done chiefly by lads, and there is a surplus of production. Weaving is not brilliant either, particularly for machine satins. The mean wage paid for this work is 15 francs ($2.90) per week. The prices for hand work are slightly higher, but there are at least three months a year when there is no work.

Mr. Lepers stated that the only way to ameliorate this state of affairs was to come to some international agreement concerning the shortening of the hours of work and the wages of labor.

The question of abolishing piecework was considered. The English desired its absolute suppression; the French, Austrians, and Germans voted for it; the Belgians abstained from voting.

A resolution to obtain by all legal or other means the abolition of extra hours and night work was proposed; also one in favor of transforming the means of production, now the property of private individuals, into collective property. The continental delegates thought that the abuses suffered by textile workers could be corrected by legislation. The English delegates believed that the remedy lay in proper organization among workmen. The socialistic resolution was adopted by a large majority.

The congress resolved that strikes lasting more than four weeks and comprising more than two thousand people should be aided by members of all countries, at the rate of 12 cents per week and per member.

The next congress will meet at Zurich, Switzerland, in 1902.

W. P. ATWELL,

ROUBAIX, *July 31, 1900.* *Consul.*

STRIKES IN GERMANY.

From a quarterly report, published by the imperial statistical office at Berlin, just issued, I have taken the following data:

The number of strikes not settled on January 1, 1900, was 46. New strikes inaugurated during the first three months of 1900 numbered 330; terminated during the first three months of 1900, 303. This latter number affected 1,922 managements, of which 943 were closed down completely. Under all of the 1,922 managements, the number of employees was 81,151, of whom 11,862 quitted work. In 272 managements, the strike did not extend to all employees. The highest number of employees striking at the same time was 35,606. One thousand seven hundred and thirty-eight employees were forced to be idle. Of the 303 strikes, 67 were entirely successful, 91 partially so, and 145 were unsuccessful.

The strikes affected the following industries: Mining, quarrying, metal working, machinery, chemical, illuminating, textile, paper, leather, wood carving, food articles, clothing, building, polygraphic, artistic, commercial, and transportation.

Of the 46 strikes inaugurated before January 1, 1900, 42 were terminated during the first three months of this year; and of the 330 strikes begun during this period, 261 terminated before April 1, 1900.

RICHARD GUENTHER,
Consul-General.

FRANKFORT, *August 2, 1900.*

LABOR CONDITIONS IN FRANCE.

Employers and employees in France, including all classes of labor, are organized into societies called "syndicates," the more important of the first class having large and well-appointed headquarters, with from two to eight officers to look after their business. In Lyons and in many other cities, the municipality provides a building called la bourse du travail, or labor exchange, in which the workingmen hold their more important meetings. It comprises one large hall and a number of small rooms, in which meetings are held nightly, often seven and eight at a time.

As the different trades that cooperate in building are about the same the world over, I take that trade in Lyons, the second city of France, to illustrate the rates of wages in this country. There is much activity in building here. Many streets are on lines laid four

hundred years ago, and modern convenience and health require a continual tearing down and reconstruction. This is everywhere in progress since electric tramways are relieving the congested quarters of the old city.

The employers' syndicate of Lyons comprises 625 members. Its object, as stated in its last report, is:

> To further the interests of builders, to study and propose improvement in buildings, to secure the employment of the best material, to give opinions upon questions relating to the work of building; to decide, with the aid of experts, all disputes relating to the execution or the interpretation of contracts; the fixing of prices; and, if deemed advisable, to establish yearly, with the aid of whomsoever it may concern, a list of prices for building work; to study, devise, and employ every method to advance the interests of its members.

This syndicate was organized in 1862. Since that date, twenty-three strikes have occurred among employees in the building trades, all of which it has settled. No outside parties—not even the Government board of arbitration le Conseil des Prud'hommes—have ever been permitted to interfere in the adjustment of labor troubles in the building trades. They have been settled, with but little friction or expense, between a committee of the strikers themselves and representatives of the employers' syndicate.

In the statement of principles of the syndicate, it is set forth that one object is to enforce all agreements between employers and employees, and that it will not recognize or support any member who seeks to violate a contract once entered into with his employees.

This syndicate is often asked to investigate and to report upon disputes arising between building contractors and men or companies for whom they are doing work, or between furnishers of materials. Nearly five thousand cases have been sent to it by the courts, with the request that it render a decision upon a point in litigation or that it appoint a committee to investigate and agree upon the technical details of some question and report the same to a court of record. This compromise by arbitration is provided for by section 1003 of the code. Although the parties bind themselves to abide by the decision of the arbitrators, they can and do appeal from it. From 1863 to 1899, seven thousand three hundred and ten cases were tried before this syndicate, and of that number five hundred and forty-two were appealed to a court, on the complaint that one of the experts had not fairly reported the facts within his knowledge. These cases are all settled in a very short time and at small expense.

The society has a reserve fund derived from monthly dues and fees imposed for hearing cases, from which prizes are given yearly to students in architecture and other pursuits pertaining to building.

In connection with a committee appointed by the workingmen, the society fixes the wages of all persons employed in the building trades. The secretary, M. Alfred Fond, gave me the following schedule of wages per hour in Lyons at the present time:

	Cents.
Carpenters	13½
Masons	12
Locksmiths	11
Plasterers and painters	12
Plumbers	11 to 12
Stonecutters	11 to 12
Chimney builders	11 to 12
Layers of mosaic paving	12
Laborers	9

The fact that the syndicate, in conjunction with representatives of the trades, fixes the rates of wages does not prevent strikes. Officers of the syndicate inform me that when a schedule of wages is fixed it is expected to last only until the workingmen think they can exact better figures from their employers.

It is through this syndicate that the price for constructing a building is fixed. A committee named by the syndicate agrees upon what will be charged, according to cost of material and current rate of wages of carpenters, stonecutters, masons, etc. The findings of this committee are revised by a committee appointed by the city council, consisting of members of the builders' syndicate, architects, contractors, and landlords. No builder ever charges higher than the prices thus fixed. They sometimes charge less.

I give the current wages of some of the other trades in this city. Employees in the silk mills receive from 50 to 60 cents per day; a small number of skilled workmen, $1.50 to $2 per day. Metallurgical works, employing some 14,000 men, give $1 to $2 per day; laborers receive 60 to 80 cents per day. Over 1,000 men are employed in five large flour mills; wages range from 60 to 90 cents per day; a few receive $1. Bakers, generally night work, obtain 90 cents to $1 per day and lodging. The preparation of pork meats (charcuterie) is carried on very largely in families, the employer working with his men. The number of employees is placed at 300; wages, with board, being from $6 to $16 per month. It is estimated that 15,000,000 pounds of pork are worked up annually in Lyons into sausages and other forms of food. Over 3,000,000 pounds are exported. The two large slaughterhouses belong to the city. A clause inserted in the permit to build them provided for their reversion to the city after a certain time. Some 2,000 men and boys are employed in the meat markets and slaughterhouses of the city, wages of the first averaging 80 cents per day; of the latter, 30 cents. The wages of goldsmiths and jewelers are $1 to $1.55 per

day; watchmakers, $1 to $1.50; jewelers, 75 cents to $1.50; women employees, from 40 to 80 cents; bronze workers, $1 to $1.50.

I have given the wages in a few of the great industries of Lyons, which, as a rule, are higher than the average rates in France.

In the June number of the Bulletin de l'Office du Travail, a national labor organ, mention is made of a number of strikes among carpenters and metal workers where the wages were only 60 and 70 cents per day. At Casteljaloux, Department of Lot-et-Garonne, the carpenters struck for 62½ cents per day in summer and 54 cents in winter. At the same time the carpenters of Havre struck for 14½ cents per hour, instead of 11½ cents, which they were receiving.

The conductors on the electric tramways are paid 83, 92½, and 96 cents and $1.19 per day of ten hours' work, according to the number of years they have been in the service. A careful watch is kept over them. At every track crossing where passengers are accustomed to enter or to change cars a "controller" is stationed. He counts the passengers as they go in through the one entrance and sees that the conductor rings them all up before the car starts. He punches all the transfers to prevent conductors from passing transfers to each other, turning them in as having come from passengers, and dividing the proceeds, a habit said to have been formerly much in vogue. These controllers are paid $26.50 per month to begin with, $28.50 per month after fourteen months' service, and $30 per month after three years' service, for ten hours' work. The motormen are paid 87½ cents per day to begin with and $1.18 at the end of one year. They expect in time to receive as high as $1.50 and $1.75 per day of ten hours and a half.

The under prefect of Thiers, Department of Puy-de-Dôme, reported last week that 30,000 people are employed in the cutlery works in that neighborhood. Three hundred persons own small establishments in which they work, helped by from 1 to 4 persons, often members of the family, all engaged in piecework. The report says that in the manufacture of a pocketknife 22 workmen are employed for the handle and blade, 18 for a table knife, 9 for scissors, and 6 for razors. The stone upon which the blades are ground makes from 300 to 500 revolutions per minute, each workman paying for the power. Including women and children, 2,000 persons are engaged in knife grinding. A good workman makes from $1.75 to $2.25 per day, out of which he pays about $74 per year for rent, power, use of wheel, etc. An ordinary workman earns from 85 cents to $1 per day; the adjuster or fitter, from 30 to 40 cents. He is generally a small farmer and works in his home. The grinder is out of work in winter when the river is frozen and in summer when it is dry or when any accident happens to the machinery.

A committee of cutlery workers in Thiers, who recently asked for a raise in wages, were told that the market for their product had undergone a decided shrinkage during the last ten years, especially for exportation; that the excess of production over consumption had glutted the market; that there was an increase in the cost of raw material and an augmented output in competing countries on account of improved means of manufacture.

Men employed by the Government in the ranks of the civil service are not much better paid, but they are often ex-soldiers with no trade, and are easily satisfied with steady employment, even at low wages. The firemen in Lyons, who give all their time to their duties, are paid $270 per year; the auxiliary corps, $44 per year and $1 for an extra service of twenty-four hours three or four times per year. They are occasionally called on to serve extra from 8 p. m. to 5 a. m., for which they are paid 30 cents.

The policemen, generally young, able-bodied men, receive from $22 to $30 per month, according to their time of service. Only a few receive over $25 per month. The policeman's wife can earn from $3 to $4 per month making corsets, cravats, or in embroidery work. In 1896, according to the latest official figures I have, there were 416,000 employees in the civil service in France, and their average wages were $287.50 per year. School teachers are included in this list. The number of functionaries has increased 121 per cent in the last fifty years, principally since the schools have come under Government control.

While wages are much lower here than in the United States, the cost of living is higher, if the quality and quantity of food be considered. The American workingman eats about twice or three times as much as the Frenchman. The prices of fruit, vegetables, meat, fish, and all prime necessaries of life are higher here. Ordinary white sugar costs from 11 to 11½ cents per pound. An inferior article of coffee costs 33 cents per pound; a good article, from 60 to 90 cents. Tea costs from 50 cents to $1.20. The tariff duty is 5 cents per pound on sugar, 13.96 cents on coffee, and 18.25 cents on tea. Fish ranges from 20 to 60 cents per pound. Beef, mutton, veal, and pork cost from 20 to 30 cents a pound. Everything sells in the butcher's shop—bones from 2 to 4 cents per pound, the latter figure incuding marrow. Liver brings 20 cents.

The finer silks, velvets, broadcloths, and clothing made to order cost from 25 to 50 per cent less here than in the United States; for ready-made goods, the prices are about the same. Cotton goods, sheeting, shirting, ginghams, and calicoes are generally cheaper and of better make in the United States than in France. The same is true of house furniture. The reason given me for the difference in

the price of furniture is that ours is made by machinery and that of France by hand. If people live more cheaply here than in the United States, it is because they do not live as well and have not the means to live better.

JOHN C. COVERT,
Consul.

LYONS, *July 25, 1900.*

ANTWERP IVORY MARKET.

Consul-General Lincoln writes from Antwerp, August 11, 1900:

The third quarterly sale was held on the 31st of July and 1st of August, and the ivory offered was as follows:

Kongo:	Pounds.
Hard	117,693
Soft	2,874
Angola	35,295
Gaboon	6,750
Kamerun	6,399
Abyssinian	679
Gold Coast	1,179
Hippopotamus teeth	421
Total	171,290

The totals for the corresponding quarters of proceeding years were:

	Pounds.
1899	160,732
1898	139,011
1897	94,980
1896	136,685
1895	117,743
1894	158,142
1893	78,393

The entire stock was sold at prices averaging a decrease of 19.3 cents per 2.2046 pounds for the heavy and medium weight tusks and 28.9 cents for the "oversizes" and scrivailles for balls. Tusks for bangles, as well as the solid and hollow scrivailles, however, were not sold under the prices of the preceding sale.

The stock on hand amounts to about 209,437 pounds, as compared with 224,869 pounds in 1899, 164,628 pounds in 1898, 154,322 pounds in 1897, 125,662 pounds in 1896, and 317,462 pounds in 1895.

The next sale is fixed to take place on October 30, 1900.

GERMAN RUBBER TRADE.

Germany's import of crude rubber and gutta-percha in 1899 amounted to 139,164 metric cwts.,* representing a value of 75,000,000 marks ($17,850,000) and an increase over the year 1897 of about 40 per cent in bulk and of about 50 per cent in value. The exports of raw materials amounted to 54,329 metric cwts., estimated at 3,000,000 marks ($714,000). Russia imported more crude rubber than Great Britain and five times as much in 1899 as in 1898. The United States received very large quantities of German crude rubber—three times as much as in the preceding year. The official statistics comprise under raw materials old and waste rubber. Germany gets rid of a good deal of its old rubber, and the United States does not appear to mind buying shoddy.

The imports of finished rubber goods consists chiefly of threads and plates, shoes, and textile fabrics impregnated with rubber.

The ordinary preparation of seamless rubber wares, by applying successive coatings of rubber solution to a mold, not rarely yields blistered goods. There are small bubbles throughout the mass, which is likely to wear badly and soon become leaky. According to some authorities the atmospheric moisture is responsible for the mischief. The solvent evaporates and cools the rubber surface; moisture is condensed in a fine dew, which impairs the cohesion of the layers. The remedy lies in drying the air, either by absorbing the moisture or by cooling the air below the temperature which the rubber can assume. The latter arrangement is preferable. One method is to cool the air, heat it again a little—lest the low temperature render the evaporation of the solvent too sluggish—and dry it. The arrangement does not appear to be free from objections, but the process is a continuous one, which has its advantages.

Mr. R. Schlechter's report on his West African expeditions, addressed to the German colonial committee, which sent him out to study the possibilities of rubber cultivation in German territory, will probably have some influence on the future of German competition in the raw-rubber market. He says that on his numerous excursions into the district surrounding Ngoko station, he found the kickxia tree in great abundance. One man could easily collect in a day sufficient milk to make about 5½ pounds of rubber. An average stem, tapped in the afternoon, yields sufficient juice to make 4¼ pounds of rubber. In the Kongo State, 1 pound of rubber collected

*Of 220 pounds.

by a man in a day is considered a fair average. It is evident, therefore, that the southeast territory is much richer, if it is not the richest rubber province of all Africa. He describes the different methods adopted in order to convert the milk into rubber, and mentions (1) boiling the milk after mixing with water, (2) boiling the milk after mixing with water and acids, (3) the centrifugal process, (4) smoking, (5) tapping the water from the rubber. He found it necessary to instruct the officials and natives as to the best and simplest method to produce a good quality, and took care to impress upon them that they could command a better price for really good rubber than for watered caoutchouc.

OLIVER J. D. HUGHES,
Consul.

COBURG, *July 16, 1900.*

Under date of July 20, 1900, the consul adds:

Herr Schneider, of Strassburg, has brought out a new substitute for gutta-percha, which is favorably reported upon by the polytechnic institute of that city. No information has yet been given as to the composition of the material. In ordinary temperature, it is hard, like pitch, and fairly firm against pressure, but not brittle. It does not break when hammered, even at freezing point; in a warmer atmosphere, the mass softens. Thin plates kept in sea water at 34° F. did not lose in weight in a fortnight, nor did the water take up anything by solution.

GERMAN CASE-MAKING INDUSTRY.

The labor agitation that has been felt in most parts of Germany has affected the china, doll, and toy industries, and workmen have asked for, and in most cases have received, a raise in wages and a decrease of the number of working hours. The latest strike has been in the case-making industry of Sonneberg, an industry that is of surprising proportions when the size of the town—about 13,000 inhabitants—is considered. It is estimated that about $35,000 is expended there for cases in one year, and most of them are made in the town or its immediate neighborhood.

The cases are constructed mostly in small shops, though several of the regular furniture makers and carpenters also add these to their line of work. The proprietors have recently made an arrangement as to prices, uniformity of cases, remuneration for labor, etc. They now all ask the same prices, and there is a cash penalty for any infraction of the agreement.

The combination of the makers was the only possible means of release from the disastrous conditions that prevailed in the trade. Without a mutual agreement, it would have been next to impossible to meet the raise in wages asked for by their workmen and to pay the increased price on all raw materials. With the organization that now prevails, all seem satisfied and stable conditions will probably govern the industry.

Consular Agent Joy, at Sonneberg, reports as follows:

A comparison of prices shows a raise of 12 to 15 per cent over old prices in the cost of the case to the exporter. The new prices will be in force from the 1st of August, but the workmen receive their increase of pay from the middle of July. The wages of the workmen are increased about 2.60 marks (62 cents) per week, being now 19 to 21 marks ($4.52 to $4.99).

A large quantity of the wood used is grown in and around Sonneberg, though considerable comes from southern Bavaria, where a cheaper article prevails. The cheaper cases, roughly nailed and not glued together on the sides, are often brought in car-load lots; they need oil-paper lining and more care in packing than the others. The price of wood has risen in the last ten years 14 per cent for the thinner pieces or boards; for the cleats nailed outside of the larger cases, about 33 per cent. The wire nails used have risen 80 per cent. The men work eleven hours on five days, and on Monday ten hours. The price of the case is figured by the meter. One mark (23.8 cents) per cubic meter (35.316 cubic feet) is charged for small cases, and 90 pfennigs (21.4 cents) on the large sizes. The difference the new prices will make is from 30 to 80 pfennigs (7 to 19 cents) per case, or from 12 to 15 per cent over old prices.

American importers will not be affected this year, as it is customary to have the prices fixed for the season. Many manufacturers admit that most of their profit is made in the cases they ship in. The prices of goods are so low that this is the only chance of profit to the seller. Five per cent of the cost of case is estimated for the straw and labor used in putting up the goods, and this is included in the charge for the cases. Putting an extraordinary charge on cases shipped to the United States is not practiced in the German or English trade. In Germany, the cases are in many instances returned to the manufacturer, as the Government railroads give a special rate thereon. Prices quoted to England are on goods at store door, no account being taken for cases, but everything being included. Many American buyers realize that they pay an immense profit on their cases, but they can not help themselves. It is a very hard matter to learn the prices from case makers to exporters.

OLIVER J. D. HUGHES,
Consul.

COBURG, *July 27, 1900.*

GERMAN MASK INDUSTRY.

Paper masks are made by doubling one sheet of a specially prepared paper, wetting it, and molding it by hand over a face form; it is then dried by artificial heat and cut off of form. Openings are cut for eyes, nose, and mouth, and it is painted and decorated by hand as desired. The paper used by Sonneberg manufacturers is made in Oeslau and Schleusingen and costs at present about 1.40 marks (33 cents) per 480 sheets. One sheet makes three of the common masks. The painting of cheap masks costs about 50 pfennigs (12 cents) the gross; the molding of face costs about 60 pfennigs (14 cents) per gross. Packing is figured at about 3 per cent, as the masks are rolled in brown paper, the ends being folded in to save string. The expenses are estimated at about 15 per cent, leaving the net profit 20 to 22 per cent, as the complete article sells at present at about 1.80 marks (42.8 cents) per gross. The cash discount varies from 2 to 5 per cent, according to the size of order and reliability of purchaser. Last year, the masks sold for about 1.50 pfennigs (one-third of 1 cent) each, and next year's price is expected to be 1.85 marks (43 cents) per gross. The cost of raw paper next year, it is estimated, will be higher, and there will be an increase in the cost of painting. The hair used for mustaches, etc., cost last year 65 to 70 pfennigs (15.5 to 17 cents) per pound, but this year 80 pfennigs (19 cents) is paid. Manufacturers have no trouble in getting good prices, and are making handsome profits. These calculations are on the cheapest staple goods; on specialties, the gain is considerably more.

Wire masks are made by stamping a piece of wire netting about 1 foot square over a face mold in a large machine, inclosing the rough wire edges in a narrow strip of lead, and painting. The latter is done by hand in oil colors. The prices of these masks have undergone little change during last year, but an increase of about 20 pfennigs (4.7 cents) the dozen is looked for next season. The present selling price of the cheaper masks, on which my calculations are based, is 2 marks (47.6 cents) the dozen. The wire is at this date selling for about 35 marks the 100 kilograms ($8.33 per 220 pounds), but this is an extraordinarily low price. The workmen on these wire masks are reported as fairly well satisfied with the wages they receive at present, and no marked increases are looked for next year. The men receive 18 to 20 pfennigs (4.3 to 4.7 cents) the dozen for making the mask; putting on the first flesh color costs about 16 pfennigs (3.8 cents), and the painting of eyes and features, etc., about 24

pfennigs (5.7 cents) the dozen. Prices of labor, as well as of raw materials, will not be settled for next season until the latter part of November.

Gauze masks are made by molding over a clay face form a doubled piece of cheap linen gauze that has previously been soaked in a starchy paste. The sticky linen is made to adhere to the form, and this is set on a stove and dried for about twenty minutes. The linen is then taken off and openings cut for the eyes, mouth, and nostrils. It is painted as desired, and makes one of the most practical masks known. The gauze mask is used considerably in the United States, but the larger portion of them are made therein by machines owned by two firms, one in New York and the other in Findlay, Ohio. The price of the gauze has risen about 10 per cent over last year, being at present 6 marks ($1.43) per 40-meter (44 yards) bolt; one bolt makes 25 dozen masks. The cost to make and paint, including linen, which is sold to workmen, is 7.20 marks ($1.71) the gross. Add 3 per cent for packing, 15 per cent for general expenses, and the cost comes to about 8.50 marks ($2.02) the gross. The masks are sold at present for about 9.60 marks ($2.28) the gross, a rise of 60 pfennigs (14 cents) over last year's prices. The profit is thus only about 13 per cent, and not the 20 to 25 per cent expected when calculations were made. The reduced profit is due to the increase in cost of materials and labor after the goods were sold. Most of this industry being factory work, the trade is more easily controlled than in other industrial pursuits of Sonneberg, and no startling changes are looked for.

OLIVER J. D. HUGHES,
Consul.

COBURG, *July 30, 1900.*

ELECTRIC TRACTION FOR CANALS.

Some interesting experiments in boat traction by means of electric locomotives were recently made on behalf of the Prussian Government by Messrs. Siemens & Halske, of Berlin. The scene of operations was a short length of the Finow Canal, which forms a portion of the water way between Berlin and Stettin and is traversed every year by about 25,000 to 26,000 boats each way. The craft used are in the main barges, some 132 feet long by 15 feet 6 inches beam, carrying 150 to 175 tons. There are also a few steam barges employed, which carry about 150 tons and can tow a second barge. The traffic to Berlin is much heavier than toward Stettin, and as a consequence three-fourths of the barges return light from the metropolis. Traction is generally effected by horses, there being

a towpath on each bank, but on the down journey man traction is not infrequently relied on. In any case the speed is low and, including stops, does not average more than about 1¼ miles per hour.

The section of canal used for the experiments was selected owing to its physical difficulties, presenting as it does several curves, in one of which with only 328 feet radius the water way is spanned by a railway bridge. The line laid down for the towing engine was of 1-meter (3.28 feet) gauge, the outer rail weighing 18.2 pounds per yard, while the inner, which was fixed on the inner edge of the towpath, weighed 9.1 pounds per yard. These rails, which were of the flange type, were laid partly on sleepers ballasted with gravel and partly on blocks of concrete, weighing 220 pounds each in the case of the heavier principal rail, and half this in case of the other rail. This arrangement costs more per mile than the sleepers, but has been found less expensive to maintain. Though no wharf actually existed on the length of canal experimented on, the arrangements necessary were fully tested. At one point, the line was raised to a height of 9 feet 6 inches above the level of the towpath, being carried on posts and brackets The carrying posts were 12 inches in diameter, and were spaced at 18 feet 8 inches. A cap piece spanned the gap between posts and the principal rail was laid directly on this cap piece, while the other was carried by a stringer, supported at each post on brackets.

The conductor for the current was supported on pine posts 23 feet long, located 35 to 44 yards apart. It consisted of 8-millimeter wire, carried by porcelain insulators. The principal rail served as conductor for the return current. The source of power was a 15-horsepower portable engine, driving a 9-kilowatt dynamo; and a large storage battery was also provided. The extreme dimensions of the towing locomotive were 6 feet 10 inches in length by 4 feet 10 inches wide. Its total weight was 2 tons; but the motor was so placed that only one-fifth of this total came on the accessory rail. The motor provided was much more powerful than necessary for the work in hand, as it was capable of working at the rate of 14 to 15 horsepower. Since, however, these experiments were merely preliminary ones intended to test the possibilities of electric traction for large barges, the excess power was supplied intentionally, and the resistance requisite to call forth the full powers of the motors was in some of the experiments provided by rafts. These experiments showed the system to be capable of meeting all needs, working, as it did, with safety and economy.

RICHARD GUENTHER,
Consul-General.

FRANKFORT, *August 10, 1900.*

SILVER-MOUNTED WARE A MENACE TO HEALTH.

A Frankfort newspaper calls attention to the fact that for some time past certain kinds of silver-mounted glass and porcelain wares, such as cups, glasses, jars, vases, etc., have been placed upon the market. The silver on these articles is applied by means of a galvanoplastic process, in baths which contain very large quantities of potassium cyanide. As glazed wares have innumerable hairlike cracks, this deadly poison enters these cracks; and the articles, beautiful to look at, become a severe menace to the health of anybody using or handling them, especially as it is impossible in the course of manufacture to remove this poisonous residuum.

Only a short time ago, a very severe case of poisoning resulted from the use of such ware.

I have spoken with a member of the firm of Martin Mayer, the largest manufacturers and exporters of jewelry in this consular district, in order to ascertain the accuracy of the foregoing assertions. I was informed that the statements were perfectly true and the danger lurking in these articles was not in the least exaggerated. My informant said that his firm refuses to manufacture these wares on account of the danger to the workmen, as well as to anyone using the goods.

I am told that these goods are chiefly exported to the United States from Frankfort, Berlin, and Stuttgart.

It might be well for the public to be informed of the danger in these goods, and steps might be taken to prohibit their sale.

WALTER SCHUMANN,

MAINZ, *August 23, 1900.* *Consul.*

DUTCH EXPORTS TO CUBA.

In a letter from Habana to the Rotterdam Courant, a leading newspaper here, I find the following hints to Dutch merchants as to certain classes of goods which the correspondent thinks could with advantage be exported to Cuba.

The information may or may not be new to American exporters, but I have thought that goods which could be exported from the Netherlands to Cuba with advantage ought with still greater advantage be exported from the United States.

The writer says that, while a short time ago only gin, cheese, and earthenware were exported from the Netherlands to Cuba, now a great quantity of cacao is sent, which, on account of its superior purity, is fast supplanting the American product. Dutch margarin is also finding a great sale, and cotton goods from Enschede (Holland) are taking the place of similar goods heretofore imported from Catalonia. Coarse bagging used for baling tobacco, which heretofore has come from England and Germany, is now imported from the firm Ter Horst & Co., at Rijssen.

These are, however, only a few of the articles for which a good market exists in Cuba; all of the following can be imported with profit: Tin wrappers (for cigar export), drugs and chemicals, bed quilts, linen and cotton goods, calico, cloth, shawls and ladies' furnishings, bottles, glass and earthen ware, twine and rope, candles, corks, paints and varnish, margarin, rice, tea, paper and cardboard, and straw covers (for bottles).

The Cubans are great lovers of cheese. In the week ended June 27 last, there was imported into Cuba from the Netherlands 4,000 cases of Gonda cheese, valued at 40,000 florins ($16,000).

S. LISTOE,

ROTTERDAM, *July 23, 1900.* *Consul.*

LAMPS IN AUSTRIA.

In reply to inquiries from a New York association (which has received copy of the report), Consul Hossfeld, of Trieste, says:

The kerosene oil used in this consular district is the product of Russian crude petroleum. There have been during the past ten years no direct importations of American petroleum at Trieste.

I do not believe that American lamps would have to be equipped with special burners if Russian oil were used In the lamps of Austrian manufacture, either Russian or American oil may be burned.

While some Belgian and German lamps are imported here, probably nine out of ten of all the lamps sold in this consular district are of Viennese manufacture. In fact, nearly all the principal lamp makers of Vienna maintain branch houses at Trieste, as well as in the other large cities of the Empire.

Prices are high, in some instances 30 or 50 per cent more than in the United States.

I think that cheap lamps, especially, could be sold here to great advantage if our manufacturers would imitate the tactics of Viennese lamp makers and open in the cities of southern Austria stores of

their own. No native can sell American wares in a foreign country as successfully as an American who is familiar with the language and customs of the country. This has in recent years been demonstrated in every large city of Europe. The American knows what most retailers in southern Europe, at least, still have to learn, viz, how to advertise, how to display goods, how to meet competition, how to gratify and at the same time to educate the popular taste; and, above all, he knows how to "hustle." It is, moreover, difficult to induce a native retailer to buy foreign wares as long as their sale is still in the tentative stage.

As a great deal of latitude is left to customs officers in the classing of imported ware, it is always advisable to commence operations with trial shipments. The customs officers here, as elsewhere, are guided by precedents, and the importer who has once cleared a sample shipment knows just what duties he will have to pay on his various goods in the future.

All custom duties in Austria are specific and must be paid in gold (the gold florin being equal to 48.7 cents). Lamps pay duty according to the material of which they are made, as follows:

Description.	Duty in gold, per 100 kilograms (220.46 pounds).	
	Florins.	
Made of tin, plain; also combined with wood	8.50	$4.14
Made of tin, coppered, varnished, etc.; of ornamental cast iron, not polished	15.00	7.31
Made of iron, bronzed, nickeled, or enameled	25.00	12.18
Made of zinc, copper, German silver, brass, or of other not precious metals (aluminium and nickel excepted), cast or not cast; also combined with other materials of no higher class	20.00	9.74
Made of aluminium, nickel, britannia, packfong, brass, bronze, etc., ornamented, *i. e.*, finely polished, stamped, or pressed, of fine workmanship; also made of copper, lead, zinc, or cast iron, galvanized with the above-mentioned materials, if not otherwise specified	50.00	24.35
Made of base metals, gilt or silvered, if not otherwise specified	100.00	48.70
Made entirely or in part of precious metals	300.00	146.10

All other kinds of lamps pay duty according to the materials employed in their manufacture. Thus, lamps made solely of glass and brass would pay—

Description.	Duty.	
	Florins.	
For the parts which consist of glass only	15.00	$7.31
For the parts which consist of brass only	20.00	9.74
For the parts which consist of both glass and brass, the duty of the higher material, viz	20.00	9.74

If the opening of American retail lamp stores abroad seems inexpedient, those of our manufacturers who are anxious to establish in Europe a permanent and profitable market for their wares should at least send traveling salesmen familiar with the languages and commercial customs of the countries in which they are expected to do business.

Anyone looking over the hotel registers of Trieste will find that fully one-fourth of the commercial travelers that come here are from Germany and Great Britain. If it pays Germany and England to send their "runners" here, why should it not pay the United States? Efficient salesmen with well-equipped sample cases will find more and better customers and will be cheaper in the end than the thousands of circulars which daily fill European waste-paper baskets.

LAMPS IN MARSEILLES.

The following extracts are from letters written by Consul Skinner, of Marseilles, to New York and Chicago firms:*

There are several local manufacturers of lamps in Marseilles, and whether there is a future here for American goods depends upon the price. Lamps retail rather higher than in New York and are inferior in quality. Good reading lamps at modest prices, such as may be found in any American stock, are hard to obtain, the local assortments consisting usually of the two extremes in both price and quality.

The French burner is commonly provided with a lever, by which the chimney may be raised and the wick lighted without touching the hand to the glass. The device is practical and desirable. Efforts have been made to apply an incandescent burner—probably about the same thing as the American Welsbach gas burner—to petroleum lamps in this city, but the experiment was not successful.

The tariff imposed on lamps by the French Government is as follows per 220 pounds:

Lamps of porcelain, glass, iron, brass, etc	$11.58
Lamps of gold or silver plated metal	48.25
Lamps of nickel-plated metal	28.95

If the lamps are detachable, the tariff for the mounting is $1.54 per 220 pounds, the lamp reservoir and permanently connected parts paying as above.

The tariff schedules are so extended that the foregoing figures are tentative rather than positive. In introducing a new article, the

*Copies have been sent the correspondents.

only absolutely certain method of knowing the rate of duty would be to submit a sample for custom-house examination.

The popular illuminating agent in France continues to be the old-fashioned candle, and in most of the hotels gas has not been distributed through pipes beyond the offices and dining rooms. In many of the very elegant private residences, more particularly those belonging to the old families of the country, the same condition prevails. On a ceremonial occasion, the halls and salons will be magnificently illuminated with wax tapers, distributed in large chandeliers and beautiful lusters, one of the latter in each of the four corners of every apartment. Among the plain people, gas is too expensive for ordinary use, and in many cities like Marseilles electricity is not to be employed at any price. After candles, the oil lamp is next in popularity. A great may people make use of certain simple processes of manufacturing acetylene gas. Devices for the production of this gas upon a small scale for use in lamps are for sale everywhere. A large number of cafés and institutions of that character have private acetylene-gas plants, and the arrangements for burning this gas have been so perfected that its use gives satisfaction.

The retail price of oil is 7 cents per liter (1.05 quarts), and for high-grade oils the price is considerably higher.

NEW LINES OF STEAMERS BETWEEN FRANCE AND THE UNITED STATES.

The only new lines of steamers which have been recently established between the United States and France are the auxiliary freight line of the Compagnie Générale Transatlantique (French Line)* and the line operated by the Compagnie Franco-Canadienne de Navigation à Vapeur.

I am informed by the agent of the French Line that the results of the supplementary freight service have been satisfactory to his company. There are three steamers employed at present: the *Bordeaux*, 4,788 gross tons; the *Alexandre Bixio*, 2,253 tons; and the *Fournel*, 2,187 tons. Sailings take place every three weeks from Havre, the vessels calling at Pauillac (Bordeaux) en route to New York. If the trade should demand it, the sailings would be increased to every two weeks, or oftener if necessary.

The Compagnie Franco-Canadienne de Navigation à Vapeur is a

*A report on this freight line, dated April 27, 1899, was published in ADVANCE SHEETS OF CONSULAR REPORTS No. 429 (May 18, 1899).

French company was recently formed for the purpose of carrying on a monthly steam service from Havre and Bordeaux to Quebec and Montreal. Its head offices are at Paris, 3 rue de Louvre; the Canadian agent being A. Poindron, 36 rue St. Francis Xavier, Montreal. It advertises to issue through bills of lading for merchandise direct to Toronto, London, Ottawa, Hamilton, Kingston, and other cities in the interior of Canada and the United States. It has at present two steamers—the *Montblanc*, a vessel, according to Lloyds, of 3,279 gross tons, and the *Louisiana*, 1,973 tons. It would be difficult at this time to say whether this line will prove to be a success.

The Barber Line is running a line of chartered freight steamers between New York, Havre, and Dunkirk, with irregular but frequent sailings. At Dunkirk, unless there should be sufficient return cargo from that city and Havre to New York, the vessels are surrendered.

The United States consular agent at Dunkirk was recently asked by some English friends whether there would be a chance of creating a new line of steamers between that port and the United States, but he does not think there is any prospect of definite action being taken at present. I am informed by the United States consul at Nantes that there is no likelihood of a new line of steamers being established between Brest and the United States; but the question of a new line from Philadelphia to Nantes is being agitated, with good hopes of success. Information concerning this line can be obtained by corresponding with R. de Bonard, 54 Quai de la Fosse, Nantes, France.

The callings at Cherbourg of the large steamers belonging to the Hamburg-American Company, the North German Lloyd, and the American Line have increased the maritime importance of that port. The commercial situation, however, will not be greatly changed until important improvements shall have been made in the inner harbor of Cherbourg, so that the large vessels fecting the trans-Atlantic service can enter therein, and proper arrangements shall have been made for the reception of the vessels and the handling of their passengers and cargoes.

At present, the trans-Atlantic steamers have to lie in the outer harbor, and passengers, baggage, and merchandise have to be embarked and disembarked by means of small steamers.

A. M. THACKARA,
Consul.

HAVRE, *July 26, 1900.*

BERLIN EXPOSITION OF FIRE PREVENTING AND EXTINGUISHING APPARATUS.

Consul-General Mason writes from Berlin, August 2, 1900, in regard to the international exposition of fire preventing and extinguishing apparatus, methods, and appliances, to be held in that city in the summer of 1901. Mr. Mason gives the classification of exhibits, regulations, etc., already printed in the CONSULAR REPORTS,* and adds:

The duration of the exposition and the competitions pertaining thereto will be from six to eight weeks. The day of opening and closing will be announced in due course. Competition is open and a cordial invitation issued to exhibitors from all countries, who should address their applications for space to Mr. Emil Jacob, managing director, 41 Linden Strasse, Berlin, S. W.; telegraphic address, "Feuerrettung," Berlin.

The form of application, which should be sent in if possible not later than October 1, 1900, should state clearly the following points: Name of exhibitor, whether person or firm; city, street number, State and country of residence; area of space desired, *i. e.*, length and breadth in meters (1 meter=39.37 inches); whether underground space or expanse of water is desired, and, if so, how much; if a separate section or cabin is desired, how large in meters; if the exhibitor prefers to erect a special pavilion, a sketch of the same should be submitted, with dimensions stated in meters.

The application should further state if the apparatus to be exhibited will be set in operation; if so, by what kind of power; whether it is desired that tables or shelving shall be supplied by the exhibition authorities, whether the right of sale is reserved for exhibits, for what amount insurance against fire is desired, and, finally, any special request that the intending exhibitor may wish to make in advance.

Steam, water, gas, and electricity will be supplied as motive power, according to arrangements that may be made with the committee, which is empowered to ask, when desirable, for drawings and specifications of proposed exhibits.

Measures are in progress to obtain free entry into Germany for all exhibits coming from other countries, but when such articles are sold in this country at or after the exposition the duty will have to be paid. Permission to sell exhibits will be granted by the

* See ADVANCE SHEETS No. 803 (August 9, 1900).

management, but no article thus sold can be removed until after the close of the exposition.

The honorary president of the exposition committee is Prince Hohenlohe, Chancellor of the German Empire, and the enterprise is in the hands of officials and experts of the highest position and authority.

In view of the acknowledged preeminence of American fire brigades and apparatus of all kinds, as well as the growing importance of the subject—emphasized by the fearful losses of life and property through fire in our own country during the past year—the hope is expressed that American firemen and manufacturers of fire preventing and saving appliances will take an active part in the forthcoming exposition, show the best that they have achieved, and study what there is to be learned from the most advanced practice of foreign countries.

LEIPZIG CITY PAWN SHOP AND SAVINGS INSTITUTION.

Striking features, in connection with the municipal governments of the large cities in Germany, are the city pawn shops and savings institutions (Städtische Leihhäuser und Spar Cassen), establishments where poor people, in need of temporary financial assistance, can go and obtain loans upon wearing apparel, furniture, jewelry, books, etc., at a low rate of interest. In addition to these city pawn shops there are private ones as well, where loans are made at exorbitant rates of interest, but where, it is claimed, larger loans can be raised upon the collateral than at the official shops.

My idea in writing upon this subject, in submitting the latest figures regarding the Leipzig Städtisches Leihhaus, is to invite the attention of our city officials to this method of making relief possible to that class of our people which needs the most care and consideration—the laboring class. It is held by many economists and philanthropists that a step further than the establishment of city pawn shops should be taken, namely, to make it unlawful for private individuals and companies of any kind to loan money upon wearing apparel, furniture, jewelry, books, etc.

The Leipzig City Pawn Shop and Savings Institution was established in the year 1825, since which time millions of dollars have been loaned. There is, perhaps, no better indicator of the condition of the working classes than the pawn shop. When work is plentiful the loans are but few, but when hard times come the number and value of the loans increase.

Saxony being the center of manufacturing in Germany, the condition of the people here will give a comprehensive and intelligent idea of the financial status of the Empire. That Germany has been prosperous during the past five years is admitted by all, save the most pessimistic. To show the thriving state of affairs in Leipzig, I know of no better way than by describing the business condition of the City Pawn Shop and Savings Institution.

The decrease in the number of articles pawned since 1892, with slight fluctuations, has been continuous up to the end of 1899. In 1899 there were 168,573 new loans, amounting to 2,509,970 marks ($597,373), recorded, showing 654 loans less than in the preceding year. In proportion to the increase in population from 1892 to 1899, the number of articles pawned has decreased fully 25 per cent. In 1892 there were 194,801 new loans issued, which amounted to 525 loans to every 1,000 of the population. In 1899 there were 168,573 new loans issued, amounting to only 391 to every 1,000 of the population.

The report of the City Pawn Shop and Savings Association board of directors reads as follows on this point:

> The number of persons pawning furniture and other articles of value has fallen off in the last year, in spite of the fact that the winter set in earlier than in the preceding year. The favorable condition of the business market, the demand for labor, and the higher wages which have been paid have had an influence in bringing about this result. This condition can only be viewed with general satisfaction. Of the articles pawned, 156,569 were redeemed, making 91.57 per cent of the number pawned in 1898, while 14,270, or 8.43 per cent, were sold at auction in accordance with the statutes. From these figures, which are nearly the same as those of the preceding year, it will be seen that there was no distress among the citizens of this city.

The working capital of the City Pawn Shop consists of 405,155.53 marks ($96,427) of its own funds and 642,111 marks ($152,823) borrowed from the City Savings Institution. The earnings of this total capital of 1,047,266.53 marks ($249,250) amounted to 15,925.48 marks ($3,794), or 1.52 per cent. As the capital loaned from the savings institution was borrowed at 3½ per cent interest, amounting to 21,403.70 marks ($5,094), there was a loss of 5,478.22 marks ($1,304) which reduced the pawn-shop funds to 399,677.31 marks ($95.123). Since 1894, these funds have been reduced 54,168 marks ($12,897). The loss would have been greater in 1899 if the running expenses of the pawn shop (which is operated in conjunction with the savings institution) had not been reduced from three-fifths to one-half, the other part of the expenses being carried by the savings institution.

The proceeds of the six auctions held were 146,018.66 marks ($34,753), which was 23,562.91 marks ($5,607) in excess of the money loaned on articles pawned. However, as the balance obtained over

and above the amount loaned on the article or articles is returned to the former owner thereof, there would have been a deficit of 2,524.51 marks ($601) had there not been a balance of 9,205.03 marks ($2,191) unclaimed funds.

The City Savings Institution shows the following figures:

	Marks.	
Cash on hand at end of 1898	59,200,503.36	=$14,089,719
Deposited, 1899	13,917,610.45	= 3,312,391
Total	73,118,113.81	= 17,402,110
Withdrawn, 1899	14,653,000.94	= 3,487,414
Balance	58,465,112.87	= 13,914,696
Accumulated interest	1,712,270.60	= 407,520
Cash on hand at end of 1899	60,177,383.47	= 14,322,216

The number of depositors increased from 175,719 to 180,480, making a gain of 4,761, but the deposits decreased about 82 cents per depositor.

The deposits are divided as follows:

Deposits.	Number of depositors.		Increase.
	1898.	1899.	
Up to 60 marks ($14.28)	68,747	71,022	2,275
60 marks to 150 marks ($14.28 to $35.70)	27,944	28,650	706
150 marks to 300 marks ($35.70 to $71.40)	22,516	23,268	752
300 marks to 600 marks ($71.40 to $142.80)	22,172	22,752	580
Over 600 marks ($142.80)	34,340	34,788	448
Total	175,119	180,480	4,761

It is well known that the backward tendency of 1899 was on account of the condition of the money market. The fall in the price of securities is also to be taken into consideration. This caused small capitalists who were in need of ready money to withdraw their deposits from the savings institution, this being preferable to selling their securities at a loss.

The earnings from the regular course of business have not been increased to any great extent. The net earnings for 1899 were 376,486.02 marks ($89,604), an increase of 39,137.67 marks ($9,134.84) over 1898. This favorable result was counterbalanced, however, by the continued fall in the price of stocks and securities. The loss on preferred stocks held by the savings institution amounted to 941,926.18 marks ($224,178) for 1899. The earnings of 376,486.02 marks ($89,604), together with 565,440.16 marks ($135,574) drawn from the reserve fund, had to be used to cover this deficit. Such an unsatisfactory state of affairs has never before existed since the establishing of the savings institution. The loss on effects averaged over

3½ per cent, and the very best paper, such as 3½ per cent Prussian consols and imperial bonds and 3 per cent Saxon annuity bonds, suffered the greatest decline.

Of course, it will be claimed that an actual loss to the savings institution has not been incurred as long as it is not obliged to sell its securities, for the institution will still receive the full interest on them, as heretofore. However, it is indisputable that the savings institution is prevented by the present condition of the stock market from putting these securities into circulation except at a great loss, and so the greater part of its capital is tied up in such a way as to hamper business operations.

All other savings institutions, according to reports, are similarly situated. We must conclude from the foregoing that the loss on investments in "mündelsichere Papiere" is heavy. As the profits from business operations did not cover the loss in stocks, the deficit had to be covered from the reserve fund. This fund amounted to 3,110,025.17 marks ($707,860) at the end of 1898, increased by 3 per cent interest to 3,203,325.93 marks ($762,392), from which 565,440.16 marks ($135,548) was withdrawn to cover the loss on stocks, thus leaving 2,637,887.77 marks ($625,844) in the reserve fund at the end of 1899.

Although the large reserve fund is a guaranty for the soundness of the savings institution, the fact that it is guaranteed by the city makes it absolutely safe in every way. The most timid of investors need not have any uneasiness on account of the capital invested in bonds that have fallen in value. The fall in bonds can only hamper the freedom of the institution in operations, but does not affect the depositor in any way. Now, as in the past, the City Savings Institution remains the most commendable establishment for people who wish to safely put their money out at interest and at the same time have it as much as possible at their disposal.

The number of depositors increased 538 in 1899; the deposits, on the contrary, were 19,143.43 marks ($4,556) less than in 1898. The savings institution has five receiving tellers, which makes it very convenient for the depositors, as they do not have to wait any length of time. In the so-called penny-savings department, stamps are used. The sales of savings stamps, at 10 pfennigs (2.38 cents) each, amounted to 25,650, 36,980, and 34,470 during the years 1897, 1898, and 1899, respectively. This shows a slight increase in the deposits. This arrangement, however, has not attained the popularity in Leipzig that it has in other cities.

The amount in mortgages at the end of 1899 was 32,443,794 marks ($7,721,623), being 1,604,760 marks ($381,933) more than at the end of 1898. During 1899 there were twenty loans on mortgages,

amounting to 2,565,660 marks ($610,627), while nineteen mortgages, amounting to 960,900 marks ($229,625). were taken up. The total number of mortgages held by the savings institution at the end of the year was 565.

The constant advance of the rate of interest on the money market brought about a discussion among the directors of the institution as to whether or not it would be advisable to raise the rate of interest on mortgages. An average of 3.75 per cent interest was received on all mortgages held by the institution, a rate in nowise proportionate to the present condition of the money market. After due consideration it was decided to raise the rate to 4 per cent, and from the 345 mortgagors who were affected by this advance only one gave notice of withdrawal.

The securities (bonds, etc.) held by the institution amounted to 25,570,267 marks ($6,085,724) at the end of 1899, a decrease of 1,099,431 marks ($261,665) in comparison with 1898. The decrease was through the redemption of bonds. No new investments in bonds were made, as it was not thought advisable to run the risk of further losses.

The investments in mortgages are, as the figures show, 6,873,526 marks ($1,635,899) more than in securities (bonds, etc.). Ten years ago, the amount invested in securities was 1,385,376 marks ($329,719) more and fifteen years ago 4,371,166 marks ($1,040,338) more than in mortgages. This is a good criterion of how the depositors have had their money invested in recent years.

BRAINARD H. WARNER, Jr.,
Consul.

LEIPZIG, *July 26, 1900.*

MILK INSPECTION IN LEIPZIG.

in transmitting to the Department a translation of the new rules and regulations governing the inspection and trade in milk, as adopted by the city council in Leipzig, Consul Warner, under date of July 24, 1900, reports that the old regulations were abolished at the instance of the advisory board of the Saxon agricultural department for the reason, chiefly, that their requirement of 3 per cent of fat in the milk could not always, even with the best intentions on the part of the farmers, be complied with. The present regulations reduce the fat requirement in the milk from 3 per cent to 2.7 per cent.

The amount of fat in milk can be increased by artificial fodder, such as cotton-seed-oil meal, cocoa meal, and other foods containing high percentages of oil; but the milk thus produced could not be used

in a raw state. Such milk would be very unhealthy for children and could only be used for butter making, and every mother would be obliged to return to milk containing less fat, but which would be perfectly healthy.

The new standard of 2.7 per cent of fat in milk is the prevailing one throughout Saxony. Of ninety-five cities and towns, only fifty-nine contain any articles in their regulations concerning the lowest allowable percentage of fat. The following gives the percentages of fat required by these fifty-nine cities: Forty-five, 2.7 per cent; four, 2.6 per cent; three, 2.5 per cent; three, 2.4 per cent; two, 2.8 per cent; and two, 3 per cent.

The rules and regulations governing the milk question in Leipzig cover the appointment of officials, the places of milk inspection, testing the amount of fat in the milk, its specific weight, the milk books of the officials, guarding against irregularities, analyses in chemical laboratory, guarding the public against the sale of unhealthy or adulterated milk, etc., and are too extended and too technical for publication in detail. The part relating to milk for children is, however, given as likely to be of special interest to the officials and philanthropists having the same interest in charge in our towns and cities:

MILK FOR CHILDREN.

Milk for the use of children, infants, invalids, etc., must be full milk one quality, and can only be sold by those dealers who have received special permission from the city council. A person who wishes to keep cows for the purpose of producing milk for children, etc., has to report his intention to the city council and request permission to do so.

The requirements for such permission are as follows:

(1) The applicant must be a reliable person who has had experience in the milk trade or who has some experienced persons in his employ.

(2) The stables in which cows are to be kept must not only be large enough, but must fulfill the hygienic conditions as well.

(3) Only such cows are allowed to be kept in these stables as give milk for children; each cow must be so marked or branded that it will be impossible to mistake. The council is to be immediately notified whenever any new cow is added to the stable.

(4) All cows must be healthy and show no reaction after the customary injection of tuberculosis lymph. Each cow must receive the lymph injection before being placed in the stable; and at any time thereafter such injection can be repeated, at the discretion of the council.

(5) The sickness of any cow must be immediately reported (by the veterinary surgeon having superintendence of the stable to which it belongs) to the council. Any such cow can be removed from the stable at the discretion of said veterinary.

(6) The cows are to be fed, cleaned, and cared for in a proper way. All food which, in the opinion of the veterinary, is inappropriate must be dispensed with.

(7) Every person employed in milking, feeding, or otherwise looking after the cows must submit a certificate from a physician certifying that he or she is free from infectious or nauseous diseases (especially tuberculosis). These certificates

must be submitted by the proprietor of the establishment to the supervising veterinary at least once in six months.

(8) Stables, cows, and all utensils and cans used in milking, storing, and transporting the milk are to be kept in a scrupulously clean condition.

(9) The well-strained or centrifugally purified milk is to be well cooled and delivered to the consumers as soon as possible. When the milk is not delivered direct to the consumers, but, instead, goes through the hands of milk dealers, it is to be sold only in bottles provided with patent stoppers and closed with the private seal of the producer, or insured in a similar manner.

(10) Stables and every establishment in the city of Leipzig are under the control of the district physician; in the suburbs they are under the supervision of an official veterinary surgeon, no matter where the stables or stores may be located.

The veterinary must make an inspection, etc.

Consul Warner adds that cows which give milk for children are not allowed to feed in pastures, but are confined to stables and fed dry food, such as hay, meal, etc.

SAUSAGES IN GERMANY.

Consul-General Guenther writes from Frankfort, July 27, 1900:

At Zwischenahn, Grand Duchy of Oldenburg, the agrarians have formed a stock company for the manufacture of sausage and other articles of meat.

According to the Butchers' Gazette, this company has repeatedly shipped sausage which was pronounced by the meat inspection at Brunswick as of inferior quality or as unfit for consumption. It seems that 1,000 pounds of sausage furnished by the company at Zwischenahn to a merchant were rejected by the inspectors. These 1,000 pounds of sausage, as also 100 pounds of red and liver sausage sold to a keeper of a restaurant, were pronounced as entirely unfit for consumption, and were destroyed.

Under date of July 24, 1900, Consul-General Guenther says:

The question whether the coloring of sausage is an adulteration has been denied by the penal court of Mannheim.

An importer of meats was sentenced to a fine of 30 marks ($7.14), but on appeal was acquitted. The court held that in this case a coloring of American sausages did not constitute an adulteration of an article of food. The law could have made coloring an adulteration. This, however, is not the case. An adulteration would exist generally if a state of affairs were created which was not what was claimed. In this case, a method is used by which perfectly sound meat will preserve a healthy color for a long time and look appetizing. The meat remains faultless. The appeal was therefore sustained.

CURRANT CROP OF GREECE.

As a great quantity of currants is exported from Greece to the United States, and as this quantity increases every year, I submit the following information relative to the crop of 1900:

In a few days, the currant vintage will begin. This year's crop, on account of the disease called peronosporos, will be reduced to from 55,000 to 60,000 tons, while the average production for the years 1894–1899 has been 150,000 tons, showing a decrease of 60 to 65 per cent in this year's crop. In some districts—Patras, Pyrgos, Zante, and Cephalonia, for instance—the destruction is nearly complete. In the district of Patras, where the usual production is from 15,000 to 17,000 tons, it will this year not exceed 1,000 or 1,500 tons, the loss being 90 per cent. The vines at Corinth and Vostizza are in better condition, the damages not exceeding 30 per cent.

As already said, the average production of currants in Greece is 150,000 tons a year, which has been distributed for the last five years as follows:

	Tons.
United Kingdom	56, 100
France	11, 000
Germany	23, 000
United States and Canada	14, 400
Australia	9, 500
Holland	12, 000
In reserve, according to the retention act	24, 000

For this year, the production is calculated at 60,000 tons; stock remaining in Greece from the crop of the last year, 7,000 tons; stock in the markets of consumption, 8,000 tons; quantity ready for exportation, 75,000 tons.

This quantity, considering the high prices which prevail, will be, according to all probability, disposed of as follows:

	Tons.
Great Britain and Australia	50, 000
United States and Canada	9, 000
Holland	10, 000
Germany	6, 000

The reasons given for the small currant consumption in continental Europe, as compared with former years, is that a large part of the imported currants is consumed in industries, and the prices being too high for such purposes, the consumption will be reduced.

Besides the foregoing stock of currants, 22,000 tons are stored in the retention warehouses. This comes from the tax on fruit imposed on account of the currant production for the last five years being greater than the demand.

The retention act, which has been reenacted for ten more years, fixes a minimum of 10 per cent and a maximum of 20 per cent for retention, the exact percentage to be fixed by a representative committee called together in the middle of August. Before coming to a decision, the committee must take into consideration the estimated yield of the crop and the universal stocks and consumption of the preceding year.

Since the production this year is so small, the Government, it is said, will permit the free exportation of all the production. The decision upon this will be obtained in a few days.

The currants stored in the warehouses in Greece according to the retention act can not be exported in that shape; they must be transformed into alcohol or wine.

At present the prices of currants are very high, and the growers hope to obtain for their new crop still better ones.

The shipments of new currants will begin on the 18th of August.

D. E. MAXIMOS,
Vice-Consul.

PATRAS, *August 17, 1900.*

WHEAT AND FLOUR AT MALTA.

The market for American wheat at Malta has somewhat improved, and it would appear from the following communications which have come into my possession that certain restrictions have now been set aside, which will open the door to grades of wheat that were until recently excluded. Here, the government authorities are the largest buyers. Everything is being done to encourage the importation of wheat as against flour. The idea is to keep a large quantity in storage for any emergency. There are several mills upon the islands, but only two of them are provided with modern steel rollers. The remainder have the old-fashioned stone grinders, which under ordinary circumstances give better products from hard wheat. I am informed that the government demand is for about 11,000 quarters per month. The government has its own mill, which uses stone grinders. In buying, up to a few months ago, the government always stipulated hard wheat. Upon the inauguration of the direct line of steamers between New York and Malta (the Mediterranean and New York Steamship Company), American wheat made its appearance here. With the exception of what is known as Canadian Goose wheat, much difficulty was found in securing from the United States an article that was red and hard, that would come up to the standard required and give satis-

factory results. At one time last year, the grade known as Pacific Slope was tried with good results, but unfortunately the supply gave out before an order could be sent for more. At times, it has been difficult to obtain even the Canadian Goose wheat. I have often pointed out to the authorities here that if they could arrange in some way to use softer wheat, they would have much less difficulty in securing a satisfactory American product. Recently, on account of a change in local regulations as regards tariff on wheat and flour, and also because of direct communication between New York and Malta, local buyers have been importing much more flour than wheat. I am of the opinion that for this reason the government, in its desire to encourage the importation of wheat, has been making experiments to see if softer wheat can not be ground satisfactorily by the old stone rollers. It would appear that these experiments had been successful, and that soft wheat would no longer be discriminated against. A circular has just been sent out to various millers and others interested by the officer commanding the army service corps, from which the following extracts are taken:

In December, 1898, I addressed to you a memorandum on the subject of importing soft white wheat to Malta. Since this memorandum was circulated, the military authorities have used this description of wheat with the most satisfactory result. It is no dearer than red, it keeps well in fosse, and by rechipping the stones of the mill and a slight rearrangement of the silks of the dresser we have succeeded in producing an excellent flour, which after a few months' keeping is up to the standard of the high-grade expensive sorts which are being imported. Flour from red wheat does not keep well in hot weather here, but this does, and sirocco winds do not affect it adversely in the least. This is a great advantage.

It is for your consideration whether you should not follow our lead in this direction. There is a growing demand on the part of all classes in these islands for a whiter and better loaf, and the only way at present by which bakers can meet it is to import flour made from white wheat. Why should you not secure this industry, instead of letting it go to the foreigner?

The army-service-corps mill is open to your inspection every Wednesday from 11 a. m. to 12 noon, during July, August, and September this year, provided you bring this letter with you. There will be someone to show you the alterations to the stones and dresser, and you may have samples of the wheat and flour, together with full information as to dates of fossing, unfossing, and of grinding.

Up to a year or two ago, these islands were almost wholly dependent upon Russian Taganrog wheat. The local government does not buy direct from foreign dealers, but through local brokers. These brokers import not only for government use, but for private millers. When the Maltese people have obtained a satisfactory article, it is very hard to induce them to make a change, even though the new article is far superior. This has been the cause of the difficulty in getting them to use American wheat more extensively. At first, they would only consider experimenting with small quantities

of American hard wheat. The softer grades had no chance. Now that the government has taken the matter up, the chance of American wheat of all grades is very much better, as the government is the best customer of the local brokers. A representative of a large concern here that has always made a specialty of American goods has given me his views upon the general trade in wheat and flour. Among other things, he said:

The Maltese cling to Russian wheat tenaciously. The duty is in favor of this product, being levied on measurement, and the Russian wheat imported here gives better results than the American, as it weighs more on account of absorption of moisture. The millers here look for semola before anything else, but they have not had sufficient experience with American wheat. With two exceptions, the mills here are not equipped for it, and if they were they would no doubt go on using it in the only way they seem to know. They were inclined to condemn American wheat before, I suppose, they ever saw it. During the past year much American wheat has been used here, but it is only due to the fact that one concern started by importing a quantity for experimental purposes. Others then moved in the matter. The number of importers in Malta does not exceed the number of fingers of one hand, and with flour coming in every day you will not get any one of them to buy more than a couple of thousand quarters, unless it is for government account. Even the Black Sea product is imported in small parcels. My advice, however, is to keep on drumming American wheat. The army people do not pay duty, and the question of weight does not affect them. As for the general trade, the matter of price seems to be all important. Buyers say they would prefer Russian wheat to American, even at a higher figure, and the latter would therefore have to be a point or two lower to please them. No Indian wheat has come here for a number of years. It would seem as though the duty of $2.43 per quarter on wheat and $1.45 per 175 pounds upon flour would afford some protection to the millers, but any such advantage is lost in other ways and in competition with imported flour. If buyers of wheat can not be found, we must sell flour. If the direct line from New York could have all the flour that comes here via Liverpool and other ports, there would be more than a monthly sailing from New York to Malta. The flour business here is much cut up. It is uncertain as to how dealers here are getting their flour from Liverpool. They may buy ahead certain quantities and spread delivery over a certain time. Their sales would indicate such a course.

The steamship *Vincenzo*, which is due here from New York within a day or two, has on board 850 tons of general cargo. This is one of the largest brought here up to now, and shows that trade is increasing. In this cargo, 2,500 quarters of wheat for the government and a small quantity for private concerns is included.

JOHN H. GROUT,
Consul.

VALLETTA, *July 24, 1900.*

ALMONDS AND FILBERTS IN SPAIN.*

The chief shipping ports in Spain for the almonds and filberts grown on the hills along the Mediterranean coast are Malaga, Alicante, and Tarragona. The latest official statistics of exports show the following:

Quantity exported during first six months of 1898, 1899, and 1900.

Description.	1898.		1899.		1900.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Almonds:	*Tons.*		*Tons.*		*Tons.*	
In shell	1,277	*$127,765	346	*$34,604	241	*$24,183
Shelled	1,409	362,390	1,071	285,502	815	209,766
Filberts:						
To France	29	3,181	12	1,381	194	20,848
To other countries	2,773	297,183	1,280	137,151	1,031	110,530

*$1 American gold=7 pesetas Spanish silver.

The foregoing, covering as it does only the first six months of the year, of course fails to give a correct idea of the extent of the trade, most of the shipments being made during the second half of the year. The official statistics for the full year 1899 are not yet published.

The following table shows the exports of almonds from the port of Malaga to the United States for the year ended June 30, 1900:

Month.	Boxes.	Value.†
1899.		
July	1,813	$9,371.18
August	1,457	7,395.31
September	17,232	84,172.71
October	‡24,417	120,214.81
November	10,174	53,632.44
December	4,489	22,426.67
1900.		
January	1,700	8,024.25
February	9,642	47,732.24
March	4,709	23,879.79
April	426	2,293.58
May	1,705	9,520.17
June	None.	
Total	77,764	389,463.15

* This report was made in answer to inquiries by a Chicago firm, which has received ADVANCE SHEETS.

† In United States gold.

‡ And 190 bags.

In the supplementary report of Consul Bartleman, printed in Commercial Relations, 1899, Vol. II, page 655, he says:

> The production of almonds has been about 35 per cent larger than last season (1898); the quality is superior and prices are low, ranging from 20s. to 30s. ($4.87 to $7.30), according to grade.
>
> Shipments to all parts of the world amounted to about 300,000 boxes of 25 pounds each.

With regard to the season now commencing, strong winds have considerably damaged the crop in the Malaga district, which, though fairly large, will not reach last season's figures. Owing to the failure of the almond crops in Italy, the Balearic Islands, and Alicante, the prices will, however, open high.

The exportation of the so-called "Valencia almonds" from the district of Alicante to the United States forms one of the chief industries of that port. The trade appears to increase year by year. This season's crop, which is just beginning to come onto the market at Alicante, will probably prove much smaller than was at first anticipated, owing to the cold weather experienced at the commencement of the year in the surrounding almond-growing districts, when the blossom was greatly damaged by the frost. On account of the small crop, farmers in that district are holding their stocks, being confident of obtaining better prices later on, as it seems probable that these will rule high throughout the season. Buyers in the United States should therefore be ready to pay high prices for this season's fruit. I am informed that the first market price opened at the equivalent of 120s. per cwt. ($29.20 per 112 pounds), cost and freight.

Almonds are as a rule shipped in boxes containing 28 pounds net, inferior qualities being packed in bales of 2 cwts. (224 pounds) each. The exports of almonds from the port of Alicante to the United States from August 1, 1899, to July 31, 1900, amounted to 162 tons, made up as follows: Twelve thousand three hundred and fifty boxes, 75 bales, and 20 barrels. The total declared value was 537,217 gold pesetas ($103,682).

The average annual production in the Tarragona district may be roughly estimated at about 9,000 tons of filberts and 3,500 tons of almonds; but owing to the extreme susceptibility of the bud to be nipped by late frosts and winds, the crop returns vary considerably from one year to another. The exports from the port of Tarragona during the last two years were as follows: Filberts, 95,000 bags of 58.4 kilograms (5,548 tons) in 1898 and 82,447 bags of 58.4 kilograms (4,815 tons) in 1899; almonds, 45,000 bags of 50.4 kilograms (2,268 tons) in 1898 and 17,244 bags of 50.4 kilograms (869 tons) in 1899.

The chief markets in the district are Tarragona and Reus, but large quantities are sent from other railway stations to be shipped from different ports or for home consumption, and of these no statistics are available. The present prices of filberts in the Tarragona market range from 47 to 52 pesetas silver ($6.72 to $7.43) per bag of 58.4 kilograms (128.7 pounds); soft-shell almonds, from 60 to 65 pesetas ($8.58 to $9.29) per bag. Esperanzas and commoner sorts are considerably cheaper. Present stocks are very limited. The new crop will soon be on the market and the prospects are favorable, though it is not estimated to be above the average in quantity.

In the island of Iviza, one of the Balearic group, a very good class of soft-shell almond is also grown and exported to many parts, shipments to foreign markets being made from the port of Malaga.

M. SUMMERS,
Vice-Consul-General.

BARCELONA, *August 27, 1900.*

TOMATOES AND CANTALOUPES IN EUROPE.

English statistics show that of late there has been a large and rapidly growing importation of tomatoes, the Canary Islands furnishing the supply, which importation amounted to 16,389 tons during the first half of this year. The wholesale price of this quantity was £331,302 (about $1,655,000). Tomatoes were but a short time ago an article of luxury in Great Britain, only used for the pampered palates of the rich; but now they have become a common dish on the table of the working classes. In Germany, fresh tomatoes are sold at high prices (6 to 14 cents a pound, according to season); they are chiefly used to flavor meats, not stewed. Only the best hotels and the wealthy buy fresh tomatoes, which are supplied to Germany mainly by southern France. Canned tomato pulp is to be found at the grocers of large German cities, offered at a lower price, comparatively, than the fresh fruit.

Cantaloupes are a great delicacy—even more so than the pineapple—in German cities. They sell at 2 to 6 marks (50 cents to $1.50) apiece, weighing 3 to 10 pounds. Some of these are brought from Spain; others are raised in German hothouses. Considering that tomatoes have been sold as low as $5 a ton in Delaware and New Jersey and that fine cantaloupes can be bought in Philadelphia at 1 to 3 cents apiece, the question arises, Why don't we export fresh vegetables to Europe? The growers of our Atlantic States should form an export association, which—if it will send out men of mercantile

ability who can speak German and French—would find the European continent, as well as England, an excellent market for their produce. No country could compete with us in the export of agricultural and industrial products, were we to adopt the mercantile methods of European traders.

SIMON W. HANAUER,
Vice-Consul-General.

FRANKFORT, *August 19, 1900.*

BRITISH BUTTER, CHEESE, AND EGG MARKET.

I inclose an extract from the London Times which deals with the butter and cheese importations and shows that the Australasian butter imports into Great Britain this year exceeded by 10,200 tons the previous highest annual import and was an increase of 11,000 tons over that of last year—nearly double the increase in a single year that any country in the world has previously made. There has, however, been a decrease in prices since the beginning of October, and a noteworthy point is the decrease as compared with Danish butter. The act which limits the amount of butter to 10 per cent in margarin mixtures has the effect that competition is now between pure margarin and pure butter, high-class margarin mixtures no longer competing with butter.

The importation of cheese into this country is decreasing, there being less general consumption, owing to the prosperity of the working classes and the cheapness of imported meat. Canada has the import field here to itself. France and the United States are losing hold of the British market, France being supplanted by Belgium and the United States by Canada. United States consuls have for many years pointed out that the shipment of filled cheeses from the United States would kill the demand for cheese from that country, and this prediction now seems to have come true.

MARSHAL HALSTEAD,
Consul.

BIRMINGHAM, *August 21, 1900.*

[From the London Times, August 21, 1900.]

Two records were established during the recent Australasian butter season, and both must be regarded as complimentary to dairy farmers in the antipodes. In the first place, during the eight months that ended on April 30 last, nearly 25,000 tons of Australasian butter were discharged at ports of the United Kingdom, an excess over the previous highest annual import of 10,200 tons. In the second place, the increase of the season 1899–1900, as compared with its immediate predecessor, was no less than 11,000 tons, which is nearly double the increase in a single year that any country in the world has ever previously made. Messrs. Weddel & Co., in their annual report, do well to call attention to these facts, as also to the circumstance that the Australasian butter season began earlier and

continued later than on any previous occasion. There was, however, a continuous decline in prices, as at the beginning of October "choicest" Australasian brands made 126s. per cwt. ($30.66 per 112 pounds), when there set in a gradual fall to 94s. ($22.87) at the end of April, the decline amounting to 32s. ($7.78). To the total import, Australia contributed 17,207 tons and New Zealand 7,465 tons, these being increases of 7,550 tons and 3,398 tons, respectively, on the preceding season. Canada, like New Zealand, exhibits, season by season, a steady increase, without that periodical retrogression which unfortunately has been one of the characteristics of the dairy business in every colony of Australia, as a consequence mainly of drought. The average price of Australasian butter in 1899–1900 works out at about the same as in the previous season—103s. 6d. per cwt. ($25.95 per 112 pounds)—but the most noteworthy point is the decreasing value as compared with Danish butter. Thus, in 1895–96, Danish averaged only 5s. 4d. ($1.30) per cwt. more than Australasian, whereas last season the difference amounted to 13s. 3d. ($3.22).

Among the reasons advanced by agents for this expanding difference is that the colonial butter is not so good as it was, while Danish is getting better. Such, however, is not the case; for Australasian butter improves year by year, and is now so close in its intrinsic merits to Danish that large quantities of it are retailed at the same price. That some of the Australian brands suffered from fishiness is true; but fishiness is almost unknown in New Zealand butters, which are pressing Danish very hard in the matter of quality. The principal reasons for the greater disparity in prices in the recent season were the diminished supply of Danish and the greatly increased quantity of Australasian butter on the market. The sale of food and drugs act, which came into operation on January 1 and limits the amount of butter to 10 per cent in margarin mixtures, is having a beneficial effect, and in the future the competition will be mostly between pure margarin and pure butter. High-class margarin mixtures can no longer compete with butter, and this is as it should be. After Easter, instead of the prices of butter declining, as has been the experience in recent years, they actually advanced all through May and June, a fact easily accounted for by the lessened competition of margarin mixtures. It is during the midwinter months that the colonial butter from Australasia arrives on our markets, while that from Canada begins to arrive in July and virtually ceases in the following January. The bulk of the Canadian butter thus reaches us during August, September, and October; the bulk of the Australasian, in December, January, and February. Our growing imports of butter find no parallel in the case of cheese, which is becoming year by year less an article of general consumption, owing to the prosperity of the working classes and the cheapness of imported meat. During the last decade our import of cheese has grown only by 24,500 tons, while that of butter has increased by 71,000 tons. In the season of 1899–1900, our imports of cheese were 53,903 tons of foreign and 74,702 tons of colonial, as much as 70,549 tons of the latter being Canadian. Indeed, in colonial imported cheese Canada virtually has the field to itself, but even the imports from the Dominion have declined during the last year by nearly 5,000 tons, apparently because the Canadian dairymen—as was mentioned in the Times some weeks since—have turned their attention more particularly to the export of butter, which has simultaneously increased by nearly 6,000 tons. From foreign countries the decline in our imports of cheese mainly affects the United States. France is also losing its hold on the British market and is being supplanted by Belgium. As regards the coming season, there is every prospect that Australasia will again send us larger quantities of butter, though it is hardly probable that the increase will equal that of the season 1899–1900. The Canadian supply may also be expected to show an increase, but it is unlikely that the United States will send us more butter than in the past season. Larger imports are almost certain to come from Europe, while a moderate increase in the home production may likewise be anticipated.

FRUIT PRICES IN LONDON.

Consul Marshal Halstead sends from Birmingham, August 22, 1900, clippings from the London Daily Express and Daily Mail on prices of fruit in London. The great difficulty about the sale of fruit in England, adds Mr. Halstead, is that the fruiterers, generally known as Italian fruiterers, practically combine to maintain high prices. It is very much against their interests to sell any one fruit, no matter how abundant, at a low price. Fruit does not reach the masses in England when it is in good condition, and they are not accustomed to look for it, and intermittent opportunities to get it at low prices does not help them. If anyone could arrange for an extensive system of selling fruit cheap, there would be a startlingly large consumption in the country. The articles read:

[The London Daily Express, August 10, 1900.]

What promised to be the most plentiful year in many for apples, pears, plums, and wall fruit generally is likely now to be, if not below, at least not beyond an average year, even if no more rain comes.

Reports from Spain and Italy that oranges and lemons are not a very good crop have induced one firm to order a very large consignment from Australia.

[The London Daily Express, August 17, 1900.]

The glut of fruit at Covent Garden is really phenomenal. It is the despair of the agents there, whose returns are quite incommensurate with the quantity sold, and must be almost disastrous to some of the growers and shippers.

These are some of the prices obtained yesterday. They speak for themselves.

English "Rivers" plums were sold for a shilling a half sieve of 24 pounds of fruit; in some cases, even less.

Spanish Denia white grapes were sold at 3s. to 4s. 6d. (73 cents to $1.09) per barrel containing 24 pounds of fruit; and black grapes, 5s. 6d. to 7s. ($1.33 to $1.70). Cases of twenty-four yellow Valencia melons brought only 4s. 6d. to 5s. ($1.09 to $1.21).

The first arrival of Lisbon grapes sold for only 8s. 6d. to 10s. ($2.06 to $2.43) a half box of 48 pounds net, while cases of tomatoes, from the same source, weighing 36 to 40 pounds net, brought 10s. to 11s. ($2.43 to $2.67), showing the altogether unwonted spectacle of excellent grapes selling at a lower rate than tomatoes.

For 24 pounds of French greengages, only 4s. to 4s. 9d. (97 cents to $1.14) could be obtained; and the same quantity of Orleans plums brought no more than 2s. 6d. to 3s. (60 to 73 cents).

Even the luscious William pears sent us by France commanded no more than 2s. 6d. to 3s. (60 to 73 cents) for boxes of forty-eight exceptionally fine samples; and a somewhat inferior grade, running fifty-six to the box, went off slowly at 2s. to 2s. 3d. (48 to 54 cents).

The Californian pears, peaches, and plums mentioned in this column yesterday were not all sold, owing to the glut.

Those that were not disposed of shared the general fate in respect of prices. The remainder will be sold to-day.

It should be observed, however, in calculating retail prices from those given here, that the absolute loss of the retailer in soft fruit from one cause or another ranges from 50 to 100 per cent of his entire purchase.

[The London Daily Mail, August 22, 1900.]

There is such an abundance of fruit in Lincolnshire this year that growers are experiencing the greatest difficulty in getting rid of their supplies.

Gooseberries have been selling as low as 3d. (6 cents) per stone, and apples are now beginning to glut the markets. In many cases, the sales have not realized sufficient to pay the cost of carriage, and large quantities of fruit have been returned as unsalable.

Some growers are said to have given unsold lots away rather than be saddled with the expense of carriage home.

There is a record crop of plums this year, and when ripe it is feared that—from a marketing point of view—they will be almost worthless.

APPLE CROP OF CANADA.

What promises to be the best apple crop in the history of Canada is now fast approaching the harvesting season, and within the next three weeks the fruit will commence to be sent to Montreal, preparatory to shipment to Europe.

The export of apples last season was hardly up to the average, the aggregate going out from the port of Montreal being 286,000 barrels. In 1898, the shipments from that port amounted to 393,000 barrels. If present appearances are to be relied upon, the shipments this year will be double those of last year, provided, of course, there are sufficient facilities of transportation, and if the crop will not be such as will bring the price down to a figure at which exports are no longer profitable.

Up to the present time, Canadian growers have not packed their fruit in such shape as would make it attractive, and while the apples might be just as good as, and perhaps better than, the United States product, the price received for them in Europe has been below the figure received for the latter. A shipping man stated this morning that for anything but early apples the cold storage on the steamships was not in demand, and as this portion of the apple crop did not find a market abroad to any great extent, refrigeration cut a very small figure. Ventilated storage (done by means of fans and blowers) was being introduced gradually, and this year a number of the steamships out of the port would provide it.

The steamships are quoting last year's rate on apples, the freight to Liverpool being 2s. 6d. (60.8 cents), and to London and Glasgow 3s. (73 cents). It is said in some quarters of Canada that the size of

the crop is not the special feature, but that the quality is beyond anything heretofore seen. If this proves to be the case, and if the Canadian packers will attend to their end of the business, the shipments abroad should be very large indeed.

FELIX S. S. JOHNSON,
STANBRIDGE, *August 25, 1900.* *Commercial Agent.*

TAR-MACADAM PAVEMENT IN ONTARIO.

After years of experiment, this city is laying a pavement that for excellence, durability, and cheapness is commended for examination to those in charge of similar work in the United States.

The possibility of making good roads at reasonable cost has been demonstrated, and tests extending over a number of years on business streets prove that tarred macadam makes not only a smooth and solid roadway, but one that can be kept in perfect repair at nominal expense.

The first cost in this city, where limestone is abundant and near at hand, is from 70 to 86 cents per square yard; and the engineer estimates the cost of repairing on heavy-traffic streets at less than 1 cent per yard per year, while asphalt costs over 3 cents.

The addition of tar renders the roadway impervious to water, frost proof in winter, and prevents mud and dust in summer. It is easily repaired and does not require scraping, thus avoiding much wearing of the surface.

One block of tar macadam laid more than a year ago on a business street where there is heavy teaming shows no perceptible wear to-day. In residential streets, these pavements have been in use eight years without any repairs and are still in good condition.

The success of this method of road making depends on care in its execution—as in the case of all composite work of this character—and I submit for the information of those interested the substance of an interview with the engineer of public works, Mr. E. G. Barrow, covering details of the processes in use here.

Either stone or cement curbing should be placed before beginning the roadway. Cement costs here 50 cents per linear foot and is 6 inches thick, 20 inches in depth, and laid on broken stone or gravel. Corners are rounded and an iron plate imbedded for protection. On business streets, stone is preferable.

An essential in road making is a hard and compact foundation, which can be secured only by the liberal use of heavy rollers (12 to 16 tons) while the base is being prepared.

The grade and camber should be so designed as to carry water off the surface quickly, and all earth above the subgrade should be removed so as to conform to its level—12 inches below the natural surface—which subgrade should be thoroughly rolled and soft spots filled with stone.

The foundation must be compact, a solid bed of stone not less than 6 inches in thickness. If the soil is of a spongy nature, large, flat stones are preferred. All interstices should be filled with small stone and gravel, well rolled in. Over this a coating of gravel should be rolled hard and then a layer of tar-saturated stone, not exceeding 2 inches in diameter. These stones before being mixed with boiling tar (8 to 12 imperial gallons to the cubic yard) must be thoroughly dried, either in the summer sun or by exposure on heated plates, until all moisture is expelled.

After thorough rolling, another strata of tarred stone of the same dimensions and thickness is added, rolled, and covered with a layer of gravel and quarry chips, also mixed with tar, 1 inch in thickness, to be rolled down from three-fourths to one-half an inch. A top dressing of screenings is then added, and if a light color is desired it may be obtained by adding cement.

Most of the stone used here is machine crushed, but during the winter season it is broken by hand labor and paid for per cord, to furnish employment in lieu of alms to the needy.

Limestone is used because it is abundant, but granite or flint stone would absorb less tar and stand more pressure and wear.

JAS. M. SHEPARD,

HAMILTON, *August 3, 1900.* *Consul.*

NOTES FROM DAWSON AND TANANA.

Dawson appears to be starting in on a new era of prosperity. Warehouses and wharves are being built; a new steamship company, with three good vessels, started to do business this month; a new post-office is in course of erection; and estimates are in for a new court-house and a new gold commissioner's office, as well as for an executive building for the commissioner of the Yukon Territory.

We are now having a plentiful supply of vegetables, brought in by steamers and scows. Potatoes that retailed for $1 per pound a month ago can be had now for 20 cents per pound, or 8 cents per pound by the sack; beef and mutton are down to 40 cents per pound. Notwithstanding this, prices at restaurants are just the same.

Three cases of smallpox have developed lately; all have been isolated, and the utmost vigilance is exercised by health officers.

The local council, in order to raise a sum of about $100,000 per annum, has had property, etc., liable to taxation in Dawson assessed as follows:

Land	$1,007,330
Improvements	1,487,580
Volume of business	9,392,800
Incomes	1,448,100
Total	13,435,810

Mining machinery keeps coming in large quantities; working by machinery pays well to any who have the money to invest.

The Tanana mining district of Alaska is coming more and more into prominence; the country is rich, but difficult of access. Mosquitoes are said to be very bad on the trail; some persons who returned therefrom to Dawson were so badly marked that the medical authorities detained them, their appearance suggesting smallpox. The Tanana gold district is of immense area; I look for a stampede next winter to these fields, as in the winter one can travel so much faster and carry larger quantities of supplies over the ice and snow by dog or horse sleds.

J. C. McCook,

Dawson City, *July 16, 1900.* *Consul.*

GUATEMALAN NORTHERN RAILWAY.

The Central American Improvement Company, of which Mr. Minor C. Keith is president and Mr. Richard Barthel is secretary and treasurer, with headquarters at New Orleans, has made a proposition to this Government to complete the Northern Railway to the city of Guatemala. This railway during the present rainy season has suffered considerable damage, owing to the unusually high water in the rivers. Bridges have been washed away, and parts of the track and roadbed have also suffered. This railroad at present extends from Puerto Barrios to El Rancho, a distance of about 133 miles. This portion of the railway is practically level, and the real engineering difficulty will be encountered in the building of the 60 miles from El Rancho, the present terminus, to the city of Guatemala. The grades will be very heavy. The Central American Improvement Company proposes to complete the railway without concessions or subsidy of any kind, save that of a land grant. The conditions are, I am informed, in substance as follows:

The Central American Improvement Company guarantees to complete the railway in thirty months, without cost of any kind to the Government of Guatemala. It demands the privilege of operating

this road for ten years, after which time the Government of Guatemala shall pay to the said Central American Improvement Company the sum of $4,000,000 gold, with interest. The time condition may be increased at the option of the Government. In consideration of this, the Government must cede to the Central American Improvement Company 500,000 acres of land contiguous to the railway. These lands are to be used in the cultivation of bananas.

The general opinion is that the Government will accept this proposition, although I am told that there is some opposition.

JAMES C. MCNALLY,
Consul-General.

GUATEMALA, *August 20, 1900.*

Under date of September 7, the consul-general says that the Government has made the grant, the conditions being practically those above described.

NOTES.

American vs. German Shoes in Switzerland.—Vice-Consul-General Hanauer, of Frankfort, reports as follows, under date of August 27, 1900:

Switzerland is Germany's best shoe customer, taking nearly double the amount which England takes and thirteen times as much as is taken by Austria-Hungary. The export of German-made shoes amounted to 3,084 metric cwts. (339,240 pounds) during the first five months of 1900. Thirty per cent of this export went to Switzerland. I am positive that if our representative American shoe manufacturers were to combine and establish a fine shoe store in Geneva and advertise it well in Swiss and adjoining French papers, within a year of its establishment more United States shoes would be disposed of there than our total annual exports in that line to the American continent south of Mexico. Such a shoe establishment would have a large wholesale trade as a natural consequence. Geneva is a favorite stopping point for European tourists, and that city and its vicinity contain a great number of boarding schools for young ladies and men from all parts of the civilized world. These dress well and would give the chic American shoes preference over all others. Upon their return home they would spread a taste for American shoes among their countrymen, thereby further stimulating our exports.

British Shoe Trade.—Consul Byington transmits from Naples, August 24, 1900, clipping from the London Daily Express, which reads as follows:

Slowly but surely the boot and shoe manufacturing industry is dwindling in England.

The Board of Trade returns for last month show that we shipped over 8,000 dozen pairs less than we did in the previous July. Of this shrinkage, only about half was due to the loss of the South African trade, while the total loss was valued at about £16,000 ($77,864). This raised the decline for the year to 25,000 dozen, valued at £63,000 ($306,590).

Our imports of American and continental boots and shoes are rising rapidly, while we are reshipping less and less of these importations to our foreign and colonial customers. This means that we are retaining more imported boots for our own use and thus still further reducing the market for home-made goods. We are buying more largely than ever from the cute Yankee and enterprising continental rival. Though we sold 8,000 dozen pairs less last month, we actually imported 700 dozen pairs more than in July, 1899.

A retrospect is still more startling. In 1898 we spent £317,694 ($1,546,058) on imported boots; this year our purchases have risen to £450,200 ($2,190,898). Many may console themselves that it is only "cheap and nasty" rubbish we import. But the reverse is the fact. Not only is the quality of the goods we import improving even more rapidly than the quantity, but it is already 25 per cent higher than the price of the foot wear we dispatch to our own customers abroad.

Why is it that our shoe trade is thus dwindling and being snapped up by foreigners? A host of factors may be suggested, and each may play its part in the general shrinkage; but one cause stands out prominently.

Ladies and gentlemen desiring neat and attractive foot wear buy French and American goods, simply because English boots and shoes do not fit so well or feel so comfortable as the imported ones, and also they make the foot "look large."

The manufacturers' reply, according to the confessions of their trade organs, is a frank admission that their boots do look too big. But they throw the blame on the unfortunate last makers, not half of whom, they aver, know how to do more than shape a block of wood into something resembling a foot. "The artistic disposition of the foot over the sole" is described as the one aim and object of the French and American last maker, while its "mere distribution" is said to be the only object in this country.

This distinction is characterized as a "nice" one, but it is acknowledged nevertheless to be "vital," and it explains the comparatively small bulk the foot occupies when incased in an imported boot.

Orris-Root Trust.—Consul Marshal Halstead writes from Birmingham, August 22, 1900:

The British vice-consul at Leghorn reports that a syndicate, supported by a powerful bank, has recently secured the whole of the Veronese orris-root crop and nine-tenths of that of Florence, and that the small quantity of Florence root still in the growers' hands is being offered at enormous prices. Orris root, he states, is used as the basis of all perfumes by the manufacturers of England, France, and Germany, and is obtainable only around Florence and in the neighborhood of Verona. Importers must look, therefore, to two small districts in one country for the whole of their supplies of an indispensable article. Continuing, the vice-consul says:

The syndicate itself is still holding its stocks and apparently declines for the present to sell. Representatives of a large perfume manufactory of Grasse recently endeavored to obtain a small quantity, but without success. There are now perhaps not 50 tons in the whole of Leghorn. French manufacturers, however, appear to be fairly well stocked and are suffering no present inconvenience, but the day will come when they can not get on without orris root and they will have to pay heavily for it. Some dealers in the root, however, think that the advance in price is, on the whole, for the interest of all concerned, as, had the prices remained at the level of last year, many large growers would have given up planting. Orris root is a commodity that is subject to the most singular fluctuations in price. A fair average price is £50 ($243.32) per ton. In 1891, as much as £120 (($583.98) per ton was paid, and in 1898 as little as £26 ($126.52).

Consular Invoices in Salvador.—Under date of August 14, 1900, Consul Jenkins, of San Salvador, sends translation of a decree concerning the application of the decree of April 3, 1900,* which is summarized as follows:

ARTICLE 1. The packages shown on each invoice may bear any mark or marks that may be desirable, but each package must bear its separate serial number; the repetition of a number on two or more packages shown on the same invoice is prohibited.

ART. 2. The foregoing article does not prohibit the serial number being marked more than once on the package, or on the casing, packing, or wrapping thereof, nor does it apply to unpacked iron, building lumber, machinery, or other machinery that may be shipped without packing. It is, however, strictly prohibited to consign goods to two or more parties on the same invoice.

ART. 3. Consular officers will certify invoices signed by merchants, manufacturers, or their legal representatives when they know such signatures to be genuine. In the case of a person signing an invoice for the first time, he must do so in the presence of the consular officer who certifies to the invoice, in order that the latter may take note of the signature for the purpose of being able to recognize it on a future occasion.

ART. 4. Consular officers may not certify invoices that are not dispatched from the consular district under their jurisdiction, under penalty of nullification of such certificate.

ART. 5. When the persons specified in article 3 of this decree do not care to advise the local consul of their shipments, they may make a sworn statement, as set forth in article 5 of the aforesaid law, before the consul-general in the form prescribed by article 3 of this decree, when the consul-general will certify to the invoice.

Cereal Crops of Victoria.—Consul-General Bray transmits from Melbourne, July 26, 1900, clipping from a local newspaper relative to the cereal crops of the colony, as follows:

The position of the cereal crops in Victoria at the time of writing (July 24) is very satisfactory. From all centers good reports are being received, and as the critical period draws on it is evident that the crops will be this year in a far better position to withstand any drought than has been the case for several years. The wheat crops look exceptionally well, and the same applies to oats and barley, and if present prospects be realized the cereal yields this season will be exceptionally heavy. Regarding the pastoral position, the excellent growth of grass and favorable weather confirm our earlier view that the season for this industry will be a satisfactory one. Dairying is again making rapid strides, and it is worthy of note that the London opinion quoted in our columns this morning stated that there is every indication of London prices again opening at a remunerative level.

Exports of produce to new countries are rapidly increasing. South Africa has been the chief support of our export produce trade since December last, while now China is in the field for supplies, and it is evident that should the present struggle there be of long continuance Australian fodder, feed grains, flour, etc., will be in good demand. Already large orders are mentioned, some of which have

*See ADVANCE SHEETS No. 764 (June 25, 1900); CONSULAR REPORTS No. 240 (September, 1900).

been placed, and if the abnormal scarcity of freight can be overcome, there is no reason why a profitable and much increased trade should not be driven with the Empire of the East. As was the case with our South African exports, any large shipments made from these colonies now would prove of immense benefit as an advertisement for Australian produce. So far, the greater proportion of the breadstuff imports into China have come from America. Australia is in a handy position to absorb at least a portion of this trade.

Iron Bedsteads and Hardware in Syria.—Consul Schumann writes from Mainz, August 20, 1900:

A German export journal calls attention to the fact that iron bedsteads are being successfully introduced in North Syria. In 1899, about 3,750 iron bedsteads were imported at Beirut from Birmingham, England. The selling price was about £2 10s. ($12.16) for each bedstead.

At Haifa, North Palestine, industrial development is to be noted, which is largely due to the building of the railroad from Haifa to Damascus. There is a growing demand for carpenters' tools, locks, and other builders' hardware. These articles are at present only to be had in inferior quality and are disproportionately high in price. To meet with a ready sale, they must be simple and strong in construction.

Automobile Regulations in Chemnitz.—Under date of August 20, 1900, Vice-Consul Monaghan forwards the following regulations covering the running of automobiles in Chemnitz:

(1) Persons under fifteen years of age and persons who have no knowledge as to the management of such machines shall not be intrusted with the running of automobiles.

(2) All persons who do not give their undivided attention to the management of automobiles or who while using the same fall asleep or get intoxicated are liable to punishment.

(3) The signal to turn out shall be "Heeh." The use of signal horns will be permitted until further notice.

(4) Every automobile must carry at least one very good lantern; the same shall be lighted at the same time as the street lights.

(5) The speed of automobiles in the city shall not be faster than that of an ordinary trotting horse.

No one shall run an automobile faster than a horse walks—

(*a*) On leaving buildings or sheds bordering on the street.

(*b*) During church service in the neighborhood of churches.

(*d*) In places where there is large foot traffic.

(*e*) In places where fast driving is forbidden.

(6) Automobiles shall not be left unattended on the street.

Anyone disobeying these rules shall be punished.

Automobile Taxes in Spain.—Vice and Acting Consul Geary reports from Malaga, August 18, 1900:

I give below a résumé of the new order relative to the local tax on automobiles, as follows:

The better class of private automobiles will pay, in cities having a population of 100,000 or more, a tax of 80 pesetas, or about $11.58, for each vehicle, and for each seat, including that of the conductor, 9.40 pesetas ($1.36). In cities having from 20,001 to 99,999 inhabitants, a tax of 40 pesetas ($5.79) for each vehicle will be charged, and for each seat of the same 4.76 pesetas (69 cents). In other places of less than 20,000 people, the taxes are 20 pesetas ($2.89) for each vehicle and 2.35 pesetas (34 cents) for each seat. Automobiles for traveling along the public roads will pay, for each kilometer (0.62 mile), 4 pesetas (58 cents), and for each seat and kilometer of travel, 0.25 peseta (3.5 cents).

Method of Reckoning Time in Spain.—Under date of August 4, 1900, Vice-Consul Reed, of Madrid, reports:

The Queen Regent has signed a decree establishing the method of accounting time in this Kingdom, viz:

(1) In all railway, mail (including telegraph), telephone, and steamship service in the Peninsula and the Ballearic Islands, and in all the ministerial offices, the courts, and all public works, time shall be regulated by the time of the Greenwich Observatory, commonly known as western European time.

(2) The computation of the hours in the above-mentioned services will be made from the hour of midnight to the following midnight in hours from 1 to 24, omitting the words tarde (afternoon) and noche (night), heretofore in customary use.

(3) The hour of midnight will be designated as 24.

(4) The interval, for instance, between midnight (24) and 1 o'clock will be designated as 0.05, 0.10, 0.59.

These regulations are to take effect the 1st of January, 1901. Government officials are directed to observe and carry out the decree in each and all of their respective departments and bureaus.

Clocks in West Africa.—Consul Marshal Halstead writes from Birmingham, August 10, 1900:

Under the caption "An anecdote and a moral," Sells' Commercial Intelligence condenses in the following shape a London Daily Chronicle funny story "showing how a firm of British merchants were beaten by foreigners in consequence of supplying a superior article:"

A prominent firm of London clock manufacturers recently discovered that a rival German company were doing a large trade in cheap clocks which were sent

out to the west coast of South Africa. They got hold of a sample and, finding that there was a heavy profit on the sale, invested a large sum of money in making a better article, thousands of which were shipped to the same market. Sales were very slow, while the inferior German production sold freely. Finally the explanation came. Savages like noise. The clocks made by the original exporters had a particularly loud and aggressive tick. Their imitators made a better clock; but it was almost noiseless, and the savages would have none of it. The remedy was simple. The next shipload that was dispatched by the English firm were of vile construction, but ticked loud enough to wake the Seven Sleepers, and the natives were delighted. Thus was virtue unrewarded, while astuteness was loaded with good things.

German Trade in Scissors and Knives.—Consul-General Guenther writes from Frankfort, August 9, 1900:

Within a comparatively short space of time, the better class of scissors and shears has advanced in price about 10 per cent and the commoner grades about 20 per cent. In knives of the better grades, there has been an appreciation of 5 to 7 per cent and in the commoner grades of 10 to 25 per cent.

Except in pearl-handled knives, which have advanced largely on account of the increased cost of pearl, the appreciation in values is not due to the influence of raw material; it is practically altogether due to labor troubles. The fact that the men employed on the higher class of goods are being paid better than those working on the lower grades explains the difference in the increase in the price of the two grades of goods.

Taking into account the labor troubles and the fact that the manufacturers are busy, it is probable that German goods will be steady in price for some time to come.

Swedish Imports from Germany.—Under date of August 8, 1900, Consul Hughes, of Coburg, reports that the imports into Sweden from Germany show considerable gains, a fact which is giving general satisfaction in German manufacturing circles, as it has been said of late that Sweden, owing to the rapid development of her industries, would gradually become independent of Germany. In 1898 the import of German goods into Sweden amounted to $42,370,800, an increase of $6,164,000 as compared with 1897, while in 1899 it had risen to $49,365,600. England, with $41,432,800, against $37,278,800 in 1898, takes the next place after Germany, but increase of the English trade is altogether due to the importation of coal, which has gained by $4,288,000, while the German trade consists of numberless small manufactured articles. The consul thinks

that Sweden should be a promising ground for our goods. The large Swedish element in the United States, he says, who are aware of the superiority of our manufactures, would undoubtedly be a factor in this trade if our exporters would only take the proper initiative.

Glass Industry in Germany.—Consul Winter sends the following from Annaberg, August 2, 1900:

The manufacture of glass in Germany has become a thriving industry. The number of factories has reached 400, giving employment to about 35,000 workmen. This is a good showing, when it is considered that the production of glass is comparatively a new thing for the Empire. For the past thirty years, the import from Austria, Belgium, England, and Italy has not only been rapidly losing ground, but Germany now exports to those countries certain kinds of glass, such as bottles of every description, etc. Naturally, the German manufacturers have not yet reached that stage where they can compete with Belgium in mirrors or with Venice in fancy-colored decorations.

Telegraphone Patent Rights.—Consul Worman writes from Munich, August 4, 1900, that he has received inquiries from several parties in the United States as to the patent rights for the telegraphone, the owners thereof, etc. The Bank für Handel & Industrie, of Berlin, says Mr. Worman, represents the syndicate which controls the patents for this device. The managers have informed him that the patent rights in the United States have already been disposed of. The letter adds:

> We thank you most sincerely for your kind offer to assist us by your personal cooperation in the development of the telegraphone patents. We regret to have to inform you that we are not in a position to give you the exact information that you desire, as our attempts to produce the telegraphone in the highest possible perfection have not yet been successful.

Exports of German Steel Rails.—Vice-Consul-General Hanauer, of Frankfort, under date of August 27, 1900, reports that the exports of steel rails from Germany during the first quarter of the year amounted to 34,689 metric tons (1 metric ton = 2,204.6 pounds), valued at 4,177,000 marks ($994,126), being 12.9 per cent greater in quantity and 16.1 per cent higher in value than the exports for the first quarter of 1899. The countries to which the rails were chiefly exported were: England, 18.2 per cent; Switzerland, 17.5 per cent; Dutch India, 15.6 per cent; Holland, 15 per cent; China, 9.8 per cent; Russia, 4.1 per cent; Belgium, 3.1 per cent.

German Rules as to Showing of Flags by Vessels.—The secretary of embassy at Berlin, Mr. Jackson, writes under date of September 5, 1900, that according to a proclamation published in the Reichsanzeiger of September 4, German ships are to show the flag of the Empire (1) when meeting a ship carrying the German naval flag, (2) when passing a German fortress over which the German military flag flies if within 3 sea miles of the low-water mark, and (3) when entering a German harbor. Foreign ships are to show their national flags when meeting a German naval vessel or passing a German fortress if within the 3-mile limit, and when entering a German harbor. German naval commanders are directed to see that these regulations are carried out and, if necessary, to compel the national flag to be shown, and to prevent merchant ships from carrying the official flag or any pennant resembling that used by the imperial navy.

Prussian Freight Rates on Coal.—Under date of September 8, 1900, the secretary of embassy at Berlin, Mr. Jackson, reports that the Prussian Ministry of State has decided that, in consideration of the difficulties connected with the coal supply, the importation of foreign coal will be facilitated by the general introduction of the freight tariff on raw materials for the period during which existing conditions may prevail; in any case, for two years at least. The railway authorities are directed to make the proper arrangements for carrying out this measure. Mr. Jackson adds that the rate on raw materials is decidedly lower than the tariff on coal which has been heretofore in force.

German Exhibits in Paris.—Consular Agent Harris writes from Eibenstock, September 1, 1900:

The Paris correspondent of the London Daily Mail says that the Germans have taken full advantage of the opportunities offered by the exhibition, and are pushing their commerce. He adds:

> Their official catalogue, published in various languages, is a most artistic production. The volume is beautifully printed in colors, handsomely bound, and it contains not merely a list of exhibits, but exhaustive articles on German industries and on the industrial history of the country.
>
> One has only to glance at this volume to realize how adept the Germans are in the art of attracting attention to their wares, and how well their official representatives have worked the exhibition.

Small Electric Motors in Germany.—Consul-General Guenther reports from Frankfort, August 9, 1900:

Contrary to American practice, which seldom uses anything

smaller than motors of 5 horsepower for driving machine tools, says the Elektrotechniker, experience in Germany has shown that driving with small motors, despite their lower efficiency, may be more advantageous than driving with large ones. The ideal system of running is the separate-motor system, by which each machine is run independently and light loads thereby avoided. But the introduction of this system depends to a great extent upon the initial cost of installation. Success has been obtained with alternate-current motors of 2 horsepower without commutator or brushes and without regulating resistance.

Peat as Fuel in Russia.—Consul Hughes writes from Coburg, August 22, 1900:

The question of the scarcity of fuel in Russia has long occupied the attention of scientists. Coal is found only in small quantities, while wood is by no means sufficiently abundant to warrant extensive consumption. It is proposed to surmount the difficulty by turning the enormous quantities of peat to account. In many districts, the turf almost represents the staple fuel. Its calorific power is said to be double that of wood. The turf is compressed into small briquettes and sent to the market. It is estimated that the cost of manufacturing it for commercial purposes is about $5.84 per ton, which at present compares very favorably with the price of coal.

Complaints of Russian Wheat.—Vice-Consul-General Hanauer, of Frankfort, August 29, 1900, writes:

The Berlin Association of Grain and Provision Dealers publishes a warning to its members against grain importations from southern Russia, saying it has received reliable information "that Russian exporters in Odessa and Nicolajew (ports of the Black Sea) have of late revived the fraudulent practice, prevalent there in former years, of mixing sand, mud, and worthless grains with their shipments of wheat and barley destined for abroad." The association is now considering what steps to take to effectually stop this fraud.

New Use of Liquid Air.—Consul-General Guenther writes from Frankfort, August 9, 1900:

Mr. Carl Linde, who is giving special attention to machines for producing liquid air, describes, in the journal of the Association of German Engineers, a furnace designed by Mr. Hempel for an ingenious

application of this substance. The furnace is intended to burn low-class fuels, such as lignite and peat. The combustion is intensified by turning the gaseous mixture obtained by evaporating liquid air on the fire. Nitrogen is first set free, after which there remains a gas containing at least 50 per cent of oxygen. The price of this gaseous mixture is said not to exceed 81 cents for 1,000 cubic feet.

Protecting the German Corset Industry.—Under date of July 30, 1900, Consul Warner, of Leipzig, reports that a number of Rhenish corset manufacturers wish to have the duty on corsets imported into Germany increased, owing to the keen competition which they are experiencing from foreign manufactures. They have requested that the rate of duty should be fixed at 18 marks ($4.28) per dozen. A note of this kind was addressed to the Chamber of Commerce of Stuttgart, a place where there are many corset factories, and after looking into the subject the Stuttgart Chamber of Commerce decided not to approve of the request, because such a high rate of duty would mean a prohibition of foreign corsets and might lead to foreigners establishing factories in Germany.

Turkish Purchase of War Vessels.—The consul-general at Constantinople, Mr. Dickinson, writes from Binghamton, N. Y., August 28, 1900:

I am informed by the manager of the exposition of American goods recently opened in Constantinople that by an imperial irade the Turkish Government has just placed an order for six cruisers with the German shipbuilding yards at Kiel, and that the Minister of Marine signed, on the 10th instant, a contract for two torpedo boats of the newest pattern, which are nearly completed in the Ansaldo shipbuilding yards at Genoa. It is reported that these torpedo boats will be delivered in Constantinople in about four months from August 1.

Need of Communication with Singapore.—Consul-General Moseley writes from Singapore, June 28, 1900, in regard to the necessity of an American line of ships between Singapore and the United States. He says:

There has been no ship loaded for New York at this port for over a month, and yet there are tons upon tons of freight in the godowns for that city. I have been here more than a year, and only three small sailing vessels floating our flag have been in this port, although thousands of tons of freight go from here to the United

States annually. I am glad to say that the Pacific Mail Line has established an office here, and I have urged upon the agent the need of direct communication. The Pacific Mail now runs a line of steamers from San Francisco to Hongkong, but what is needed is American service from Singapore to New York and from Singapore to San Francisco.

New Steamship Line to Mexico.—Vice-Consul-General Hardy sends from Mexico, September 1, 1900, clipping from the Mexican Herald of August 28, as follows:

Before the close of the year, international business between Mexico and the United States will enjoy the advantages of another strong steamship line that will operate boats between Mexican and American gulf ports. The formation of the new company was brought about by the reorganization of the Mexican Gulf Steamship Company under the name of the Mexican-American Steamship Company. The old company's boats operate between New Orleans and Tampico. The new company will at once extend the service to include the ports of Veracruz and Progreso.

The headquarters of the new company will be located in St. Louis, Mo., and Mr. O. F. Spindler, agent of the Mexican Gulf Company at New Orleans, has been elected president.

The Mexican-American Steamship Company proposes to establish semimonthly sailings, and the new service will begin about November 1.

Steamship Service with Para: Financial Crisis.—Consul Kenneday writes from Para, August 21, 1900:

A short time ago only two trips monthly were made by the steamship lines plying between New York and Para, but the Booth Steamship Company and the Red Cross Line have altered their schedule and will make hereafter four trips monthly. The Hamburg German-American Steamship Company, which recently began operating between Europe and Para, has established a new line of steamers to ply between Para, Baltimore, and Galveston. It only requires a glance at the records to reveal the fact that the demand for United States products is increasing, in spite of the financial crisis in Para and the Amazon Valley, brought about by the tremendous rise in exchange and the scarcity of money.

Under date of August 23, 1900, the consul adds:

The steady and rapid upward tendency in exchange and the enormous shrinkage in the prevailing price for rubber have upset all calculations. I have it from high authority that more than five thousand notes have been protested monthly during the crisis. The situation offers no promise of improvement in the near future.

Warning to Emigrants to Buenos Ayres.—Consul-General Seeger, of Rio de Janeiro, under date of July 31, 1900, writes:

It happens frequently that tickets are sold in the United States to Buenos Ayres, via Rio de Janeiro, to people who are devoid of means after they have paid their passage. On account of the quarantine, holders of such tickets are sometimes not furnished transportation from here to Buenos Ayres. The Rio agents of the steamship companies claim the right—reserved by the respective companies on the tickets they sell—to refund a small percentage of the purchase price of the ticket, at their option, and not furnish transportation to Buenos Ayres. The purchasers in the United States, frequently unfamiliar with English, of course never read such clauses, and when they come here they are in a deplorable condition and cause a great deal of annoyance to this consulate-general.

Pearl Fishing in Venezuela.—Consul Plumacher sends from Maracaibo, August 8, 1900, translation of a contract for pearl fishing, dated July 17, which is summarized as follows:

The Government grants to Sebastian Cipriani, for a period of twenty-five years, the exclusive rights of fishing for pearls, sponges, tortoise shell, and sea products, excepting fish, on the maritime zone comprised between Costa Firme and the island of Margarita and between the latter and the adjoining islands. Said fishing must be done by means of submarine apparatus, leaving the actual fishermen the liberty of continuing their work. Sebastian Cipriani will give the Government 10 per cent of the net profits, and will commence work six months after the signing of this contract. He will enjoy free introduction through the custom-houses of the Republic of all the necessary apparatus, and no taxes will be levied on the enterprise. No similar concession will be granted any person or company during the period of this contract. This contract may be transferred to any person or company, but not to a foreign government. All controversies which may arise in the interpretation of this contract shall be decided by the courts of the Republic according to Venezuelan laws.

Harbor Tug for Falkland Islands.—Consul Rowen writes from Port Stanley, July 3, 1900:

The Falkland Island Company has procured a large steam tug, which will be here on the next outcoming steamer. I am also informed that the British Admiralty will have a steam tug when the naval works are complete. I deem this important information for shipping agents and owners, as it has been almost impossible to get in here in stormy weather, and often United States vessels when in distress went 1,000 miles farther, to Montevideo.

New Bank in Antofagasta.—Consul Greene writes from Antofagasta, July 31, 1900, that the Banco Aleman Transatlantico, of Valparaiso, has established a branch in that port. The Valparaiso bank is itself a branch of the Deutsche Ueberseeische Bank, Berlin. Heretofore, adds the consul, the city has had a branch of the National Bank of Santiago, and of the Tarapaca and London Bank, Limited, London, but the new bank will take from them a most profitable business in exchange. The major part of Bolivian and Antofagastan products go to Germany.

Venezuelan Market for Cloak Goods.—Consul Warner, of Leipzig, under date of July 30, 1900, quotes the following from the Leipziger Tageblatt, of July 27:

Cloaks and capes of fries (baize) are much worn by the country people and soldiers of Venezuela. The cloth from which these capes are made is either red or dark blue in color and can be purchased almost everywhere throughout the country. This cloth is imported exclusively from Great Britain. As the demand for these goods is quite brisk, Venezuela should be a good market for German manufacturers to dispose of some such materials.

Cotton Growing in Salvador: Statistical Bureau.—Consul Jenkins sends from San Salvador, August 14, 1900, translation of recent decrees, one reestablishing the statistical bureau and another granting a bounty of $1 silver for each centner of cotton exported; also offering to supply those who desire to cultivate cotton with seed and instructions necessary to obtain successful results.

British School of Chinese.—Consul Marshal Halstead, of Birmingham, under date of August 22, 1900, transmits a clipping from the London Daily Express, as follows:

Thanks to the efforts of Mr. Jamieson, ex-consul-general at Shanghai, a school of practical Chinese is now being established in London under the auspices of the China Association, and at the present moment two native professors, who have been brought over from China by Mr. Jamieson for the express purpose, are receiving pupils at their domicile in Maida Vale. The instruction is specially directed to commercial subjects—correspondence, forms of accounts, bills of exchange, etc. Mr. Jamieson's exertions have been greatly impeded, of course, by the recent troubles; but it will be generally conceded that his enterprise is worthy of support by everyone interested in the future of British trade in the Chinese Empire.

Spanish Commercial Museum in Vienna.—The Department has received a report from Mr. Herdliska, secretary of legation at Vienna, dated July 27, 1900, to the effect that, according to Viennese

newspapers, Spain is about to establish a commercial museum in that city for the display of Spanish wares. The consul of Spain will act as director. The object of the exhibit is to bring about an increase in exports to Austria and foster trade relations with that country.

American Goods in the Levant.—Consul Mahin, of Reichenberg, under date of August 13, 1900, writes:

The British consul at Smyrna recently made the following report to his Government:

During the past decade, the preponderance of Manchester in the cotton imports of Smyrna has been substantially shaken. In T cloth, American competition, which supplies more durable goods, has supplanted the English manufactures. In shirtings the Americans have also acquired the greater part of the market. America is likewise supplying prints, the people of the Levant regarding with high favor such goods from that country.

Swiss Steel Industry.—Under date of August 22, 1900, Consul Hughes, of Coburg, says:

Switzerland has not until now been noted as a center for steel production, though her engineers have long held a high position in the mechanical world. Recently, however, a company has been formed to work the great deposits in the Bernese Oberland, where there are many million tons of ore available, averaging 50 per cent of iron. It is intended to smelt the metal electrically, the large water power, cheaply obtainable, giving the project a reasonable prospect of success.

Weather Bureau for Germany.—Consul-General Guenther, of Frankfort, August 23, 1900, says:

The German agriculturists have expressed the wish to have a meteorological signal service established, and the German Government is inclined to comply. A meeting of Government officials and meteorological and agricultural authorities is soon to take place at Hamburg, to discuss the introduction of a telegraphic service for German agriculture.

American Coal in Russia.—Consul-General Guenther, of Frankfort, August 8, 1900, quotes from the German newspaper of St. Petersburg the following item:

American coal has arrived in Cronstadt by the 3,000-ton steamer *Accomac*. The price amounts to 17s. ($4.12) per ton. According to the opinion of experts, this coal is no way inferior to Cardiff coal.

American Factory Timekeepers Wanted in Germany.—Consul Worman, of Munich, under date of August 1, 1900, says that most factories in Germany have nothing like our electric timekeepers, and an effort to introduce them into Germany, especially into South Germany, where new enterprises are constantly being launched, ought to be successful.

Austrian Demand for Watches.—The Bureau of Foreign Commerce has received a letter from Jacques Balog, 1 Salzgries 9, Vienna, requesting the addresses of United States manufacturers of watches, nickel and gold plated; also of makers of watch chains, bracelets, and necklaces.

Demand for Trunks and Stationery in Madagascar.—Consul Gibbs writes from Tamatave under date of August 19, 1900:

I have received a request from Mr. P. H. Golaz, a reputable merchant of Tamatave, Madagascar, for the names of merchants or manufacturers handling or making tin trunks and stationery. Mr. Golaz can not read the English language, and it would be well to conduct the correspondence with him in French.

Japanese Emigrants.—Minister Buck, of Tokyo, under date of August 13, 1900, reports that the Japanese Government on August 2 issued instructions to the governors of the various provinces to permit no further emigration of Japanese subjects to the United States and Canada for the present.

Consular Reports Transmitted to Other Departments.—The following reports from consular officers (originals or copies) have been transmitted since the date of the last report to other Departments for publication or for other action thereon:

Consular officer reporting.	Date.	Subject.	Department to which referred.
S M. Taylor, Glasgow.....	Aug. 8, 1900	Agricultural conditions.....	Department of Agriculture.
J. K. Gowdy, Paris.....	Aug. 18, 1900	Dairying in France.....	Do.
M. H. Twitchell, Kingston, Ontario.	Aug. 31, 1900	Agricultural conditions.....	Do.
R. Guenther, Frankfort.....	Aug. 4, 1900	American meat products..	Do.
F. D. Hill, Amsterdam.....	Sept. 9, 1900	World's grain crop of 1900..	Do.
L. L. Stang, Saigon.....	Aug. 2, 1900	Report of rice market.....	Do.
H. Nixon, Newcastle-on-Tyne.	Sept. 20, 1900	Agricultural subjects.....	Do.
M. Halstead, Birmingham...	Sept. 21, 1900	Malarial fever experiments.	Marine-Hospital Service.

FOREIGN REPORTS AND PUBLICATIONS.

Mines and Industries of Chile.—The following is summarized from the Recueil Consulaire, Brussels, vol. 105, 1899:

A project of law to guarantee the interests of foreign capital engaged in the development of the copper industry in Chile was presented to the Government in 1898. The principal industry of Chile, after the production of nitrate of soda (saltpeter), is copper mining. For several years, Chile occupied the first rank as producer of this metal. Nearly all the copper ore extracted in Chile comes from the cordilleras of the coast, in the three great mining districts—Carrizal, Tamaya, and Chañaral. Tamaya consists of an isolated mountain with several rich lodes. The adoption of modern processes for the preparation of copper will notably increase the production in the other two districts. In 1882, the quantity of copper produced in Chile was 42,909 tons. The following table shows the production by countries in 1897:

	Tons.
United States	216, 108
Spain	54, 060
Japan	23, 000
Chile	21, 900
Germany	20, 145
Australia	17, 000
Mexico	11, 370
Cape Colony	7, 440
Canada	5, 905
Russia	5, 000
Norway	3, 450
Italy	3, 400
Bolivia	2, 200
Other countries	5, 750
Total	396, 728

The United States furnished 54 per cent of the total production. Several mining properties in Chile are now in the hands of English companies. In the province of Coquimbo are iron mines remarkable for the abundance, richness, and purity of the ore. The country lacks the mineral coal necessary for the successful fusion of this ore.

The production of nitrate of soda is increasing. The number of manufactories working in 1898 was eighty. The output for 1898 was 28,560,774 Spanish quintals (2,883,166,189 pounds). The price of an English quintal (112 pounds) fluctuates between $1.70 and $1.86.

The beet-sugar industry is represented by three manufactories for the extraction of the sugar and two refineries. The import of sugar into Chile amounts annually to some $4,439,000. To encourage this industry, the Government (December 31, 1898) granted a bounty of 2 centavos (0.73 cent) for every kilogram (2.2046 pounds) produced in the country. This bounty is to be paid during six years, commencing from January 1, 1899. The sum appropriated is divided as follows: Nine

thousand one hundred and twenty-five dollars in 1899, $18,250 in 1900, $27,375 in 1901, and $36,500 for the other three years.

A manufactory of felt hats has been started in Valparaiso, capable of turning out 100 hats per day. The Diamond Match Company, of Chicago, with the cooperation of Chilean capital, has established a factory near Valparaiso. At Villa Seca, a manufactory of shoes, with a capital of $19,466, delivers 250 pairs of shoes per week.

During 1898, 62,000 mulberry trees were planted for the purpose of encouraging the silk-worm industry. The manufactory of knit cotton underwear, at Puento Alto, furnishes 60 per cent of the consumption of the country. A society for the encouragement of national industries by means of bounties has been formed, but Congress has not yet pronounced in favor of the measure.

Railway Construction in Greece.—A report from the French minister at Athens is quoted in the Board of Trade Journal, London, May 24, 1900, as follows:

There are now about 600 miles of railway in Greece, belonging to four companies—the Attica Railway Company, the Piræus-Athens-Peloponnesus, the Thessalian Railway Company, and the Northwest Railway Company. The Attica Railway Company, about 46 miles long, including the branch to Kephissia, connects Athens with Laurium, an important mining and metallurgical center. The Piræus-Athens-Peloponnesus is the most important line in Greece, 422 miles long. In 1898, the receipts of this company were 4,620,269 drachmas ($890,712) and the expenditure 2,964,740 drachmas ($572,195). The Thessalian Railway is 137 miles long; its receipts in 1898 amounted to 2,099,010 drachmas ($405,109) and its expenditure to 944,848 drachmas ($182,356). A line was projected about ten years ago to connect the Piræus with Larissa, but nothing was done. An Anglo-French syndicate has undertaken the construction of this railway. The line will go at present as far as Denlerli, but will not be extended to the frontier until the Turkish and Hellenic Governments agree about the point where their systems should meet. The importance of the new line to the country is unmistakable. Besides facilitating the development of continental Greece, it will also probably divert a portion of the transit trade through Italy, for the Piræus will now become the nearest port to Port Said, the distance between the Piræus and Port Said being 600 miles shorter than from Brindisi to the latter port. Considerable activity is at present displayed in railway development in Greece. The Piræus-Larissa convention has been followed by that for the Pyrgos-Meligala line. This line is only 31 miles in length, but it presents engineering works of considerable difficulty. The Thessalian Railway is to be extended to Mount Pelion, and another line, from Kalavryta to Megalopolis, is contemplated.

Development of Siberian Industries.—The Board of Trade Journal, London, May 24, 1900, says:

It is expected that, with the development of the Siberian Railway, some start will be made in the manufacture of machinery in Siberia itself. For two years, the machinery and shipbuilding works of Mr. Shadrin have been doing good business at Blagovestchensk, on the Amur. He has orders for six flat-bottomed steamers for the Amur to be built this year. The engines are being made in special workshops. At Tomsk, the first cast-iron and copper foundry works have been

opened for foundry, smithy, and turning work, setting up and repairing machinery, engines, boilers, etc. At Cheliabinsk, last year, a Voronezh firm opened a machinery and engineering business near the railway line; besides carrying out orders for machinery, the firm will make a specialty of agricultural implements. Cheliabinsk is the chief point of junction of the European and Siberian railways, and of the Perm-Tiumen and Kottass lines. Over 600,000 immigrants to Siberia have passed through this station since 1893. It has become a central export station in the Siberian grain trade, and in general a great transit depot for imports and exports between Siberia and Europe. Considerable quantities of tea are arriving there by the Siberian Railway, and last year special warehouses were erected for the temporary storage of tea cargoes, under tariffs arranged between the railway and the customs authorities. There are openings for tallow-boiling establishments, soap, candle, and other manufactories, as also for flour mills. The demand for iron and the prices are enormous.

Import of Musical Instruments into the Philippines.—The Moniteur Officiel du Commerce, of Paris, calls attention to the fact that the import of musical instruments into the Philippines has always been remunerative and appears to be again reviving. The Tagals are a music-loving people; nearly all the natives possess, and know how to play on, some musical instrument, such as the mandolin, guitar, flute, etc., and in nearly every village there is a private band. The bandmaster of an American regiment recently formed a musical club of about one hundred natives, drilling them with the greatest zeal. The result has been so remarkable that it is proposed to establish a conservatory of music in Manila. Every theater and place of amusement in Manila has its orchestra, and even the bars have a few musicians, or at least a piano. Only very cheap instruments should be furnished, as the natives are not able to pay high prices. At the same time, they are satisfied with simple instruments.

Gold Discoveries in Japan.—A recent edition of the Deutsches Handels-Archiv, Berlin, has the following:

Gold was found in the rivers of the island of Jesso in very early times, but in such insignificant quantities that there was very little profit. The extraction of gold in late years has made great progress; especially since the year 1898 have large gold fields been discovered in the province of Kitami, in the northern part of Jesso. The Japanese newspapers already speak of Esashi as a Japanese Klondike, giving the most glowing accounts of the wealth of the district. Many thousands of Japanese have been allured there in the hope of making their fortunes. The whole output for 1899 amounted to 992 pounds.

In the Japanese state paper of March 30, 1900, the laws governing Japanese mining of September, 1890, were published. According to these, the right to work mines, and also to establish trade associations, is conceded to foreigners.

Attar-of-Rose Industry in Bulgaria.—The following is taken from Nachrichten für Handel und Industrie, Berlin, September 1, 1900:

The production of attar of roses for 1899 has been very lucrative, and this industry will be extended, particularly in southern Bulgaria. The area under cultivation during the years 1897–98 was about 11,673 acres, and the production was figured at from 600,000 to 700,000 mitskal (2,882,332 to 3,362,721 grams). The attar of rose of the district of Kazanlik enjoys a world-wide reputation on account of its superior quality. Of late years, the wholesale adulteration of the product with geranium oil has forced a great number of the rose cultivators of this district to address a joint petition to the Government for protection. The rose harvest of the year 1899, according to a late census, was 40 per cent less than in 1898. The export trade in oil for 1899 was very favorable, being valued at $511,777. It was distributed as follows:

France	$146,532
United States	102,567
Turkey	84,500
Great Britain	89,617

The remainder—$88,561—was divided among Germany, Russia, Austria, Belgium, Italy, and the Netherlands.

New Manufactories in Mexico.—The British Trade Journal, London, June 1, 1900, says:

Several French merchants, aided by some Mexican capitalists, are about to put up in the suburbs of Mexico City three large factories for the manufacture of cloth, shoes, and paper. The motive power will be supplied by waterfalls and transmitted electrically to each establishment. M. Ricards Mola has requested permission to put up a factory for steam engines, boilers, and machines for breaking up the stalks of textile plants. A capital of 200,000 piasters ($95,200) will be put in this enterprise. M. Daniel Turner has asked the Ministerio de Fomento for permission to establish a factory for dynamite and other explosives. The government of Leon has just granted a concession for the establishment of a cardboard factory, with a capital of 25,000 piasters ($11,900). Experiments have been made by M. Gorozpe, a rich farmer in the State of Jalisco, in order to produce alcohol from Barbary figs, or "tunas," which have proved most satisfactory.

Automobiles in the Argentine Republic.—In the British Trade Journal, London, August 1, 1900, appears the following extract from a French official report from Buenos Ayres:

The use of electric and oil power motor cars is developing rapidly here. Not only heavy delivery wagons, but also luxurious carriages, driven by oil or electricity, are frequently to be met with. The roads are gradually being improved, and a "touring club" has been formed with a view to watching over the interests of automobilism. One of the first resolutions of this club, the members of which comprise many merchants and influential amateurs, has been to establish throughout all the provinces of the Republic roads especially reserved for bicycles and light motor cars. These roads already radiate from Buenos Ayres for a distance of from 60 to 90 miles, and the work will be continued till a network of similar roads exists all over the country.

CONTENTS.

		Page.
List of Publications		IX
I.—Typesetting Machines in Europe (Belgium, 423—France, 424—Germany, 425—Great Britain, 429—Italy, 430.)		423
II.—Nobel Prizes for Scientic Discoveries		431
III.—Telegraphing and Telephoning Simultaneously over One Line	*Guenther*	435
IV.—Trade-Marks in Denmark	*Freeman*	436
V.—Trade-Marks in Germany	*Mason*	437
VI.—Working of the German Law against Speculation in Grain	*Mason*	438
VII.—Threatened Industrial Crisis in Europe	*Hanauer*	444
VIII.—Wool Crisis in France	*Atwell*	445
IX.—Crisis in the Scotch Tweed Trade	*Fleming*	446
X.—Overproduction in Germany	*Harris*	447
XI.—Cotton Consumption in Germany	*Winter*	447
XII.—Effect of the Chinese Trouble on Germany	*Hanauer*	448
XIII.—German Goods in South Africa	*Harris*	449
XIV.—German Sugar Industry	*Albert*	450
XV.—Beet-Sugar Industry of France	*Covert*	452
XVI.—The Austrian Glove Industry	*Hossfeld*	453
XVII.—Austrian Protests against Export of Timber	*Hossfeld*	454
XVIII.—British Efforts to Extend Foreign Trade	*Halstead*	456
XIX.—Making Bricks from Glass-Works Refuse in England	*Boyle*	456
XX.—Soda-Water Fountains in Great Britain	*Halstead*	457
XXI.—Vehicles and Automobiles in Cologne	*Barnes*	458
XXII.—Proposed Changes in the German Tariff	*Hughes*	459
XXIII.—Income-Tax Evasions in Prussia	*Guenther*	460
XXIV.—Cellulith	*Guenther*	461
XXV.—Bankers' Responsibilities in Germany	*Hanauer*	462
XXVI.—American Fruits in Germany	*Mason*	463
XXVII.—United States Trade with Germany	*Harris*	464
XXVIII.—Strike and Lockout in Solingen	*Brodowski*	466
XXIX.—Railway Strike at Cardiff	*Phillips*	468
XXX.—Manufacture of Patent Fuel in Wales	*Phillips*	469
XXXI.—Commercial Union of Belgium	*Roosevelt*	473
XXXII.—Money and Coinage in Spain	*Reed*	474

		Page.
XXXIII.—Electrical Goods in Turkey	*Griscom*	476
XXXIV.—Demand for Telegraphic Appliances in Turkey	*Albert*	476
XXXV.—Demand for Railway Material in Syria	*Dickinson*	477
XXXVI.—American and Russian Petroleum in the World's Markets	*Guenther*	478
XXXVII.—Russian Excise Duties	*Holloway*	478
XXXVIII.—Profits of Russian Spinners	*Halstead*	479
XXXIX.—Foreign Mining Capital in Russia	*Hanauer*	480
XL.—Ceramic Exhibition in St. Petersburg		481
LXI.—Fruit Market in Siberia	*Greener*	483
XLII.—Commerce and Industry of Japan	*Covert*	484
XLIII.—Japanese Consular Fees	*Bellows*	486
XLIV.—Rice Crop of Japan	*Bellows*	488
XLV.—Japanese Museum of Commerce at Bangkok	*King*	489
XLVI.—Tea in India	*Fee*	490
XLVII.—Economic Conditions in Indo China	*Covert*	495
XLVIII.—New Zealand Vegetable Novelties	*Dillingham*	497
XLIX.—Industrial Conditions in South Africa	*Stowe*	498
L.—Cement in South Africa	*Stowe*	502
LI.—Freight Rates to South Africa	*Stowe*	503
LII.—Customs Duties in the Canaries	*Berliner*	504
LIII.—Tariff Reductions in the Canary Islands	*Berliner*	505
LIV.—Port Charges at Algiers	*Kidder*	505
LV.—Proposed Port Works at Montevideo	*Swalm*	506
LVI.—Railways in Uruguay	*Finch*	507
LVII.—Transportation and Trade in Guatemala	*McNally*	508
LVIII.—British Honduras Railway	*Avery*	509
LIX.—Railway in Haiti	*Battiste*	513
LX.—Proposed Railway from British Guiana to Manaos, Brazil	*Moulton*	514
LXI.—Electric Lights and Cars in Asuncion	*Harrison*	517
LXII.—Trade and Economic Conditions in Peru	*Dudley*	518
LXIII.—Argentine Trade in 1900	*Lord*	519
LXIV.—Machinery and Kerosene in Martinique	*Testart*	521
LXV.—Rebate in Nicaraguan Tariff	*Scott*	521
LXVI.—Tariff Decrees in Venezuela	*Russell*	522
LXVII.—Effects of the Canadian Preferential Tariff	*Brush*	524
LXVIII.—Smelting and Mining in British Columbia	*Dudley*	525
LXIX.—Notes from Dawson and Tanana	*McCook*	526
LXX.—Conditions in the Yukon	*McCook*	527
LXXI.—Notes (Locomotives and Trucks in Cape Colony—American Flour in South Africa—Legislative Enactments in Liberia—Export Duties in Haiti—Irrigation in Spain—Coal for Swedish		

Page.

Railways—Refrigeration for Irish Butter—Germany's Imports of Butter—Turf as Fuel—Compressed Fuel—Export of German Laundry Goods—German Imports and Exports of Typewriters and Cash Registers—German Exports of Woolen Cloth to United States—Brushes in Germany—Electricity on German Farms—American Railroad Cars in Bavaria—Oysters in Europe—German Private Claims against China—Musical Instruments in Germany—Consumption of Corn in Germany—Lumber Trade in Germany—Vintage Prospects on the Rhine—Consumption of Locomotive Smoke—American Shoes in France—Permits for Travelers in Roumania—Petroleum in Roumania—German Rubber Association—New Commercial Treaties of Italy—Sulphate of Copper in Greece—An American Circus in Germany—Molten Wood in France—Bananas in Costa Rica—Amnesty Act in Peru—Steamship Service for West Coast of America—Hats in Paraguay—Increase in Nicaraguan Postage Rate—Issue of Treasury Bills in Nicaragua—New Dry Docks in Vladivostock—The Metric System in Russia—Licenses for Foreign Commercial Travelers in Russia—German Machinery Exposition in Russia—Hydraulic Presses in Madagascar—Tamatave Property Tax—London-Brussels Telephone Line—Export of Ammunition from the Netherlands—Stettin-Swinemünde Canal—Commercial University for Cologne—Consular Reports Transmitted to Other Departments)..... 530

LXXII.—FOREIGN REPORTS AND PUBLICATIONS (Commercial Conditions in Portugal—German Trade with Bolivia—Trade of Bagdad, 1899—The Uganda Railway, British East Africa—Foot Wear and Paper in Madagascar—Textiles in the Sudan—Locks on the Somali Coast—Industries in Spain)..... 547

REPORTS BY COUNTRIES.

	Page.
AFRICA, SOUTH:	
American flour in	530
Cement in	502
Freight rates to	503
German goods in	449
Industrial conditions in	498
Locomotives and trucks in Cape Colony	530
ALGERIA:	
Port charges at Algiers	505
AMERICA:	
Steamship service for west coast of	542
ARGENTINE REPUBLIC:	
Trade in 1900	519
AUSTRIA:	
Glove industry of	453
Protests against export of timber	454
BAVARIA:	
American railroad cars in	536
BELGIUM:	
Commercial union of	473
London-Brussels telephone line	545
Typesetting machines in	423
CANADA:	
Conditions in the Yukon	527
Effects of preferential tariff of	524
Notes from Dawson and Tanana	526
Smelting and mining in British Columbia	525
CANARY ISLANDS:	
Customs duties in	504
Tariff reductions in	505
CHINA:	
German private claims against	537
CHINA, INDO:	
Economic conditions in	495
COSTA RICA:	
Bananas in	541
DENMARK:	
Trade-marks in	436
ENGLAND:	
London-Brussels telephone line	545
Making bricks from glass-works refuse in	456
EUROPE:	
Oysters in	536
Threatened industrial crisis in	444

	Page.
FRANCE:	
American shoes in	539
Beet-sugar industry of	452
Cellulith in	461
Molten wood in	541
Typesetting machines in	243
Wool crisis in	445
GERMANY:	
American fruits in	463
An American circus in	541
Bankers' responsibilities in	462
Brushes in	535
Commercial university for Cologne	545
Compressed fuel in	534
Consumption of corn in	537
Consumption of locomotive smoke in	539
Cotton consumption in	447
Effect of the Chinese trouble on	448
Electricity on farms in	536
Export of laundry goods	534
Exports of woolen cloth to United States	535
Imports and exports of typewriters and cash registers	535
Imports of butter	533
Lumber trade of	538
Musical instruments in	537
Overproduction in	447
Private claims against China of	537
Proposed changes in the tariff of	459
Rubber association in	540
Stettin-Swinemünde Canal	545
Strike and lockout in Solingen	466
Sugar industry of	450
Telegraphing and telephoning simultaneously over one line	435
Trade-marks in	437
Turf as fuel in	533
Typesetting machines in	425
United States trade with	464
Vehicles and automobiles in Cologne	458
Vintage prospects on the Rhine	538
Working of the law against speculation in grain	438
GREAT BRITAIN:	
Efforts to extend foreign trade of	456
Soda-water fountains in	457
Typesetting machines in	429
GREECE:	
Sulphate of copper in	540
GUATEMALA:	
Transportation and trade in	508
GUIANA, BRITISH:	
Railway from, to Manaos, Brazil, proposed	514
HAITI:	
Export duties in	531
Railway in	513

	Page.
HONDURAS, BRITISH:	
Railway in	509
INDIA:	
Tea in	490
IRELAND:	
Refrigeration for butter in	533
ITALY:	
New commercial treaties of	540
Typesetting machines in	430
JAPAN:	
Commerce and industry of	484
Consular fees of	486
Rice crop of	488
LIBERIA:	
Legislative enactments in	530
MADAGASCAR:	
Hydraulic presses in	544
Tamatave property tax	545
MARTINIQUE:	
Machinery and kerosene in	521
NETHERLANDS:	
Export of ammunition from the	545
NEW ZEALAND:	
Vegetable novelties in	497
NICARAGUA:	
Increase in postage rate in	543
Issue of treasury bills in	543
Rebate in tariff of	521
PARAGUAY:	
Electric lights and cars in Asuncion	517
Hats in	542
PERU:	
Amnesty act in	542
Trade and economic conditions in	518
PRUSSIA:	
Income-tax evasions in	460
ROUMANIA:	
Permits for travelers in	539
Petroleum in	540
RUSSIA:	
Ceramic exhibition in St. Petersburg	481
Excise duties of	478
German machinery exposition in	544
Licenses for foreign commercial travelers in	544
Foreign mining capital in	480
Profits of spinners of	479
The metric system in	544
SCOTLAND:	
Crisis in tweed trade in	446
SIAM:	
Japanese museum of commerce at Bangkok	489

	Page.
SIBERIA:	
Fruit market in	483
New dry docks in Vladivostock	543
SPAIN:	
Irrigation in	531
Money and coinage in	474
SWEDEN AND NORWAY:	
Coal for railways of	532
Nobel prizes for scientific discoveries	431
SYRIA:	
Demand for railway material in	477
TURKEY:	
Demand for telegraphic appliances in	476
Electrical goods in	476
URUGUAY:	
Proposed port works at Montevideo	506
Railways in	507
VENEZUELA:	
Tariff decrees in	522
WALES:	
Manufacture of patent fuel in	469
Railway strike at Cardiff	468
WORLD:	
American and Russian petroleum in markets of	478

Full directions for binding the Consular Reports are given in No. 131, page 663.

PUBLICATIONS OF THE BUREAU OF FOREIGN COMMERCE.*

The publications of the Bureau of Foreign Commerce, Department of State, are:

I.—COMMERCIAL RELATIONS, being the annual reports of consular officers on the commerce, industries, navigation, etc., of their districts.

II.—CONSULAR REPORTS, issued monthly, and containing miscellaneous reports from diplomatic and consular officers.

III.—ADVANCE SHEETS, CONSULAR REPORTS, issued daily, except Sundays and legal holidays, for the convenience of the newspaper press, commercial and manufacturing organizations, etc.

IV.—EXPORTS DECLARED FOR THE UNITED STATES, issued quarterly, and containing the declared values of exports from the various consular districts to the United States for the preceding three months.

V.—SPECIAL CONSULAR REPORTS, containing series of reports from consular officers on particular subjects, made in pursuance to instructions from the Department.

Following are the special publications issued by the Bureau prior to 1890:

Labor in Europe, 1878, one volume; Labor in Foreign Countries, 1884, three volumes; Commerce of the World and the Share of the United States Therein, 1879; Commerce of the World and the Share of the United States Therein, 1880–81; Declared Exports for the United States, First and Second Quarters, 1883; Declared Exports for the United States, Third and Fourth Quarters, 1883; Cholera in Europe in 1884, 1885; Trade Guilds of Europe, 1885; The Licorice Plant, 1885; Forestry in Europe, 1887; Emigration and Immigration, 1885–86 (a portion of this work was published as CONSULAR REPORTS No. 76, for the month of April, 1887); Rice Pounding in Europe, 1887; Sugar of Milk, 1887; Wool Scouring in Belgium, 1887; Cattle and Dairy Farming in Foreign Countries, 1888 (issued first in one volume, afterwards in two volumes); Technical Education in Europe, 1888; Tariffs of Central America and the British West Indies, 1890.

The editions of all these publications except Tariffs in Central America, etc., are exhausted and the Department is, therefore, unable to supply copies.

In 1890, the Department decided to publish reports on special subjects in separate form, to be entitled SPECIAL CONSULAR REPORTS. There are now the following SPECIAL CONSULAR REPORTS:

Vol. 1 (1890).—Cotton Textiles in Foreign Countries, Files in Spanish America, Carpet Manufacture in Foreign Countries, Malt and Beer in Spanish America, and Fruit Culture in Foreign Countries.

Vol. 2 (1890 and 1891).—Refrigerators and Food Preservation in Foreign Countries, European Emigration, Olive Culture in the Alpes Maritimes, and Beet-Sugar Industry and Flax Cultivation in Foreign Countries.

Vol. 3 (1891).—Streets and Highways in Foreign Countries. (New edition, 1897.)

Vol. 4 (1891).—Port Regulations in Foreign Countries.

Vol. 5 (1891).—Canals and Irrigation in Foreign Countries. (New edition, 1898.)

Vol. 6 (1891 and 1892).—Coal and Coal Consumption in Spanish America, Gas in Foreign Countries, and India Rubber.

Vol. 7 (1892).—The Stave Trade in Foreign Countries and Tariffs of Foreign Countries.

Vol. 8 (1892).—Fire and Building Regulations in Foreign Countries.

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* Formerly Bureau of Statistics. Name changed to Bureau of Foreign Commerce by order of the Secretary of State, July 1, 1897.

Vol. 9 (1892 and 1893).—Australian Sheep and Wool and Vagrancy and Public Charities in Foreign Countries.

Vol. 10 (1894).—Lead and Zinc Mining in Foreign Countries and Extension of Markets for American Flour. (New edition, 1897.)

Vol. 11 (1894).—American Lumber in Foreign Markets. (New edition, 1897.)

Vol. 12 (1895).—Highways of Commerce. (New edition, 1899.)

Vol. 13 (1896 and 1897).—Money and Prices in Foreign Countries.

Vol. 14 (1898).—The Drug Trade in Foreign Countries.

Vol. 15 (1898).—Part I. Soap Trade in Foreign Countries; Screws, Nuts, and Bolts in Foreign Countries; Argols in Europe, Rabbits and Rabbit Furs in Europe, and Cultivation of Ramie in Foreign Countries. Part II. Sericulture and Silk Reeling and Cultivation of the English Walnut.

Vol. 16 (1899).—Tariffs of Foreign Countries. Part I. Europe. Part II. America. Part III. Asia, Africa, Australasia, and Polynesia. Supplement (1900). Tariffs of Chile and Nicaragua.

Vol. 17 (1899).—Disposal of Sewage and Garbage in Foreign Countries; Foreign Trade in Coal Tar and By-Products.

Vol. 18 (1900).—Merchant Marine of Foreign Countries.

Vol. 19 (1900).—Paper in Foreign Countries; Uses of Wood Pulp.

Vol. 20 (1900).—Part I. Book Cloth in Foreign Countries, Market for Ready-Made Clothing in Latin America, Foreign Imports of American Tobacco, and Cigar and Cigarette Industry in Latin America. Part II. School Gardens in Europe. Part III. The Stave Trade in Foreign Countries.

Vol. 21 (1900).—Part I. Foreign Markets for American Coal. Part II. Vehicle Industry in Europe.

Of these SPECIAL CONSULAR REPORTS, Australian Sheep and Wool, Cotton Textiles in Foreign Countries; Disposal of Sewage, etc.; Files in Spanish America, Fire and Building Regulations, Gas in Foreign Countries, India Rubber, Lead and Zinc Mining, Malt and Beer in Spanish America, Port Regulations, Refrigerators and Food Preservation, Soap, etc.; Sericulture, etc.; Vagrancy, etc., are exhausted, and no copies can be supplied by the Department.

There was also published, in 1899, Proclamations and Decrees during the War with Spain, comprising neutrality circulars issued by foreign countries, proclamations by the President, orders of the War and Navy Departments, and war decrees of Spain.

Of the monthly CONSULAR REPORTS, many numbers are exhausted or so reduced that the Department is unable to accede to requests for copies. Of the publications of the Bureau available for distribution, copies are mailed to applicants without charge. In view of the scarcity of certain numbers, the Bureau will be grateful for the return of any copies of the monthly or special reports which recipients do not care to retain. Upon notification of willingness to return such copies, the Department will forward franking labels to be used in lieu of postage in the United States, Canada, the Hawaiian Islands, and Mexico.

Persons receiving CONSULAR REPORTS regularly, who change their addresses, should give the old as well as the new address in notifying the Bureau of the fact.

In order to prevent confusion with other Department bureaus, all communications relating to consular reports should be carefully addressed, "Chief, Bureau of Foreign Commerce, Department of State, Washington, U. S. A."

VALUES OF FOREIGN COINS AND CURRENCIES.

The following statements show the valuation of foreign coins, as given by the Director of the United States Mint and published by the Secretary of the Treasury, in compliance with the first section of the act of March 3, 1873, viz: "That the value of foreign coins, as expressed in the money of account of the United States, shall be that of the pure metal of such coin of standard value," and that "the value of the standard coins in circulation of the various nations of the world shall be estimated annually by the Director of the Mint, and be proclaimed on the 1st day of January by the Secretary of the Treasury."

In compliance with the foregoing provisions of law, annual statements were issued by the Treasury Department, beginning with that issued on January 1, 1874, and ending with that issued on January 1, 1890. Since that date, in compliance with the act of October 1, 1890, these valuation statements have been issued quarterly, beginning with the statement issued on January 1, 1891.

The fact that the market exchange value of foreign coins differs in many instances from that given by the United States Treasury has been repeatedly called to the attention of the Bureau of Foreign Commerce. An explanation of the basis of the quarterly valuations was asked from the United States Director of the Mint, and under date of February 7, 1898, Mr. R. E. Preston makes the following statement:

"When a country has the single gold standard, the value of its standard coins is estimated to be that of the number of grains fine of gold in them, 480 grains being reckoned equivalent to $20.67 in United States gold, and a smaller number of grains in proportion. When a country has the double standard, but keeps its full legal-tender silver coins at par with gold, the coins of both gold and silver are calculated on the basis of the gold value.

"The value of the standard coins of countries with the single silver standard is calculated to be that of the average market value of the pure metal they contained during the three months preceding the date of the proclamation of their value in United States gold by the Secretary of the Treasury. The value of the gold coins of silver-standard countries is calculated at that of the pure gold they contain, just as if they had the single gold standard.

"These valuations are used in estimating the values of all foreign merchandise exported to the United States. The value of the Indian rupee, although calculated according to law at the value of the pure metal contained therein, has a commercial value above the value of the silver bullion; consequently the value for customs purposes is determined in each case by the consular certificates attached to the invoice of exports from that country to the United States."

The following statements, running from January 1, 1874, to October 1, 1900, have been prepared to assist in computing the values in American money of the trade, prices, values, wages, etc., of and in foreign countries, as given in consular and other reports. The series of years are given so that computations may be made for each year in the proper money values of such year. In hurried computations, the reductions of foreign currencies into American currency, no matter for how many years, are too often made on the bases of latest valuations. When it is taken into account

that the ruble of Russia, for instance, fluctuated from 77.17 cents in 1874 to 37.4 cents in April, 1897, such computations are wholly misleading. All computations of values, trade, wages, prices, etc., of and in the "fluctuating-currency countries" should be made in the values of their currencies in each year up to and including 1890, and in the quarterly valuations thereafter.

To meet typographical requirements, the quotations for the years 1876, 1877, 1879, 1881, 1882, and 1891–95 are omitted, these years being selected as showing the least fluctuations when compared with years immediately preceding and following.

To save unnecessary repetition, the estimates of valuations are divided into three classes, viz: (A) countries with fixed currencies, (B) countries with fluctuating currencies, and (C) quarterly valuations of fluctuating currencies.

A.—*Countries with fixed currencies.*

The following official (United States Treasury) valuations of foreign coins do not include "rates of exchange."

Countries.	Standard.	Monetary unit.	Value in U.S. gold.	Coins.
Argentine Republic*.	Gold and silver..	Peso	$0.96,5	Gold—Argentine ($4.82,4) and ½ Argentine; silver—peso and divisions.
Austria-Hungary†.....	Gold	Crown	.20,3	Gold—20 crowns ($4.05,2) and 10 crowns.
Belgium	Gold and silver..	Franc	.19,3	Gold—10 and 20 franc pieces; silver—5 francs.
Brazil	Gold	Milreis	.54,6	Gold—5, 10, and 20 milreis; silver—½, 1, and 2 milreis.
British North America (except Newfoundland).	do	Dollar	1.00	
British Honduras	do	do	1.00	
Chile	do	Peso	.36,5	Gold—escudo ($1.25), doubloon ($3.65), and condor ($7.30); silver—peso and divisions.
Costa Rica	do	Colon	.46,5	Gold—2, 5, 10, and 20 colons; silver—5, 10, 25, and 50 centisimos.
Cuba	Gold and silver..	Peso	.92,6	Gold—doubloon ($5.01,7); silver—peso (60 cents).
Denmark	Gold	Crown	.26,8	Gold—10 and 20 crowns.
Egypt	do	Pound (100 piasters).	4.94,3	Gold—10, 20, 50, and 100 piasters; silver—1, 2, 10, and 20 piasters.
Finland	do	Mark	.19,3	Gold—10 and 20 marks ($1.93 and $3.85,9).
France	Gold and silver..	Franc	.19,3	Gold—5, 10, 20, 50, and 100 francs; silver—5 francs.
Germany	Gold	Mark	.23,8	Gold—5, 10, and 20 marks.
Great Britain	do	Pound sterling	4.86,6½	Gold—sovereign (pound sterling) and half sovereign.
Greece	Gold and silver..	Drachma	.19,3	Gold—5, 10, 20, 50, and 100 drachmas; silver—5 drachmas.
Haiti	do	Gourde	.96,5	Silver—gourde.
Italy	do	Lira	.19,3	Gold—5, 10, 20, 50, and 100 lire; silver—5 lire.
Japan‡	Gold	Yen	.49,8	Gold—1, 2, 5, 10, and 20 yen.
Liberia	do	Dollar	1.00	
Netherlands§	Gold and silver..	Florin	.40,2	Gold—10 florins; silver—½, 1, and 2½ florins.
Newfoundland	Gold	Dollar	1.01,4	Gold—$2 ($2.02,7).
Portugal	do	Milreis	1.08	Gold—1, 2, 5, and 10 milreis.
Russia‖	do	Ruble	.51,5	Gold—imperia. ($7.718) and ½ imperial ($3.80); silver—¼, ½, and 1 ruble.
Spain	Gold and silver..	Peseta	.19,3	Gold—25 pesetas; silver—5 pesetas.
Sweden and Norway.	Gold	Crown	.26,8	Gold—10 and 20 crowns.
Switzerland	Gold and silver..	Franc	.19,3	Gold—5, 10, 20, 50, and 100 francs; silver—5 francs.
Turkey	Gold	Piaster	.04,4	Gold—25, 50, 100, 200, and 500 piasters.
Uruguay	Gold	Peso	1.03,4	Gold—peso; silver—peso and divisions.
Venezuela	Gold and silver..	Bolivar	.19,3	Gold—5, 10, 20, 50, and 100 bolivars; silver—5 bolivars.

* In 1874 and 1875, the gold standard prevailed.

† The gold standard was adopted October 1, 1892. (See CONSULAR REPORTS No. 147, p. 623.) Values are still, however, frequently expressed in the florin or gulden, which is worth 2 crowns or 40.6 cents.

‡ Gold standard adopted October 1, 1897. (See CONSULAR REPORTS No. 201, p. 259.)

§ See note to table of fluctuating currencies.

‖ For an account of the adoption of the gold standard, see Review of the World's Commerce, 1896-97, p. 254.

B.—*Countries with fluctuating currencies, 1874–1890.*

Countries.	Standard.	Monetary unit.	Value in terms of the United States gold dollar on January 1—					
			1874.	1875.	1878.	1880.	1883.	1884.
Austria-Hungary*.	Silver	Florin	$0.47,6	$0.45,3	$0.45,3	$0.41,3	$0.40,1	$0.39,8
Bolivia	do	Dollar until 1880; boliviano thereafter.	.96,5	.96,5	.96,5	.83,6	.81,2	.80,6
Central America	do	Peso	.96,5	.91,8	.91,8	.83,6	.....	.....
China	Silver	Haikwan tael	1.61	1.61	.....	.....	.....	.....
Colombia	do	Peso	.96,5	.96,5	.96,5	.83,6	.81,2	.80,6
Ecuador	do	do	.96,5	.91,8	.91,8	.83,6	.81,2	.80,6
Egypt†	Gold	Pound (100 piasters).	.....	.....	4.97,4	4.97,4	4.90	4.90
India	Silver	Rupee	.45,8	.43,6	.43,6	.39,7	.38,6	.38,3
Japan	Gold	Yen	.99,7	.99,7	.99,7	.99,7	.....	.....
	Silver		.....	.....	.....	.....	.87,6	.86,9
Mexico	do	Dollar	1.04,7⅛	.99,8	.99,8	.90,9	.88,2	.87,5
Netherlands‡	Gold and Silver.	Florin	.40,5	.38,5	.38,5	.40,2	.....	.....
Peru	Silver	Sol	.92,5	.91,8	.91,8	.83,6	.81,2	.80,6
Russia	do	Ruble	.77,17	.73,4	.73,4	.66,9	.65	.64,5
Tripoli	do	Mahbub of 20 piasters.	.87,09	.82,9	.82,9	.74,8	.73,3	.72,7

Countries.	Standard.	Monetary unit.	Value in terms of the United States gold dollar on January 1—					
			1885.	1886.	1887.	1888.	1889.	1890.
Austria-Hungary*.	Silver	Florin	$0.39,3	$0.37,1	$0.35,9	$0.34,5	$0.33,6	$0.42
Bolivia	do	Dollar until 1880; boliviano thereafter.	.79,5	.75,1	.72,7	.69,9	.68	.85
Central America	do	Peso	.....	.....	.....	.69,9	.68	.85
Colombia	do	do	.79,5	.75,1	.72,7	.69,9	.68	.85
Ecuador	do	do	.79,5	.75,1	.72,7	.69,9	.68	.85
Egypt†	Gold	Pound (100 piasters).	4.90	4.90	4.94,3	4.94,3	4.94,3	4.94,3
India	Silver	Rupee	.37,8	.35,7	.34,6	.32,2	.32,3	.40,4
Japan	Gold	Yen	.....	.....	.99,7	.99,7	.99,7	.99,7
	Silver		.85,8	.81	.78,4	.75,3	.73,4	.91,7
Mexico	do	Dollar	.86,4	.81,6	.79	.75,9	.73,9	.92,3
Peru	Silver	Sol	.79,5	.75,1	.72,7	.69,9	.68	.85
Russia	do	Ruble	.63,6	.60,1	.58,2	.55,9	.54,4	.68
Tripoli	do	Mahbub of 20 piasters.	.71,7	.67,7	.65,6	.63	.61,4	.76,7

*The silver standard prevailed in Austria-Hungary up to 1892. The law of August 2 of that year (see CONSULAR REPORTS No. 147, p. 623) established the gold standard.

†The Egyptian pound became fixed in value at $4.94,3 in 1887.

‡The Netherlands florin fluctuated up to the year 1880, when it became fixed at 40.2 cents.

C.—*Quarterly valuations of fluctuating currencies.*

Countries.	Monetary unit.	1897.				1898.			
		Jan. 1.	April 1.	July 1.	Oct. 1.	Jan. 1.	April 1.	July 1.	Oct. 1.
Bolivia	Silver boliviano.	$0.47,4	$0.46,8	$0.44,3	$0.41,2	$0.42,4	$0.40,9	$0.41,8	$0.43,6
Central America.	Silver peso	.47,4	.46,5	.44,3	.41,2	.41,4	.40,9	.41,8	.43,6
China	Amoy tael	.76,7	.75,7	.71,7	.66,4	.68,5	.66,2	.67,6	.70,6
	Canton tael	.76,5	.75,5	.71,5	.66,4	.68,3	.66	.67,4	.70,4
	Chefoo tael	.73,3	.72,4	.68,6	.63,7	.65,5	.63,3	.64,6	.67,5
	Chinkiang tael	.74,9	.73,9	.70	.65,1	.66,9	.64,6	.66	.69
	Fuchau tael	.70,9	.70	.66,3	.61,6	.63,4	.61,2	.62,5	.65,3
	Haikwan tael	.78	.77	.73,1	.67,8	.69,7	.67,3	.68,8	.71,8
	Hankau tael	.71,7	.70,8	.67,1	.62,3	.64,1	.61,9	.63,2	.66
	Ningpo tael	.73,7	.72,8	.68,9	.64	.64,3	.63	.65	.67,9
	Niuchwang tael.	.71,9	.71	.67,2	.62,5	.65,9	.62	.63,4	.66,2
	Shanghai tael	.70	.69,1	.65,5	.60,8	.62,6	.60,4	.61,7	.64,5
	Swatow tael	.70,8	.69,9	.66,2	.61,5	.63,3	.61,1	.62,4	.65,2
	Takao tael	.77,2	.76,2	.72,2	.67	.66	.66,6	.68	.71
	Tientsin tael	.74,3	.73,4	.69,5	.64,6	.66,4	.64,1	.65,5	.68,4
Colombia	Silver peso	.47,4	.46,8	.44,3	.41,2	.42,4	.40,9	.41,8	.43,6
Ecuador	do	.47,4	.46,8	.44,3	.41,2	.42,4	.40,9	.41,8	.43,6
India*	Silver rupee	.22,5	.22,2	.21,1	.19,6	.20,1	.19,1	.19,9	.20,7
Japan	Silver yen	.51,1	.50,5						
Mexico	Silver dollar	.51,5	.50,8	.48,2	.44,6	.46	.44,4	.45,4	.47,4
Persia	Silver kran	.08,7	.08,6	.08,2	.07,6	.07,8	.07,5	.07,7	.08
Peru	Silver sol	.47,4	.46,8	.44,3	.41,2	.42,4	.40,9	.41,8	.43,6
Russia	Silver ruble	.37,9	.37,4						

Countries.	Monetary unit.	1899.				1900.			
		Jan. 1.	April 1.	July 1.	Oct. 1.	Jan. 1.	April 1.	July 1.	Oct. 1.
Bolivia	Silver boliviano.	$0.43,9	$0.43,4	$0.44,3	$0.43,6	$0.42,7	$0.43,6	$0.43,8	$0.45,1
Central America.	Silver peso	.43,9	.43,4	.44,3	.43,6	.42,7	.43,6	.43,8	.45,1
China	Amoy tael	.71	.70,2	.71,6	.70,5	.69,1	.70,5	.70,9	.72,9
	Canton tael	.70,8	.70	.71,4	.70,3	.68,9	.70,3	.70,7	.72,7
	Chefoo tael	.67,9	.67,2	.68,4	.67,4	.66,1	.67,4	.67,8	.69,7
	Chinkiang tael	.69,3	.68,6	.69,9	.68,9	.67,5	.68,8	.69,3	.71,2
	Fuchau tael	.65,6	.65	.66,2	.65,2	.64	.65,2	.65,6	.67,4
	Haikwan tael	.72,2	.71,4	.72,8	.71,8	.70,3	.71,7	.72,1	.74,2
	Hankau tael	.66,4	.65,7	.67	.66	.64,7	.65,9	.66,3	.68,2
	Ningpo tael	.68,2	.67,5	.68,8	.67,8	.66,5	.67,7	.68,2	.70,1
	Niuchwang tael.	.66,5	.65,9	.67,1	.66,1	.64,8	.66,1	.66,5	.68,4
	Shanghai tael	.64,8	.64,1	.65,4	.64,4	.63,1	.64,4	.64,8	.66,6
	Swatow tael	.65,5	.64,9	.66,1	.65,1	.63,9	.65,1	.65,5	.67,4
	Takao tael	.71,4	.70,7	.72	.71	.69,6	.70,9	.71,4	.73,4
	Tientsin tael	.68,8	.68	.69,4	.68,3	.67	.68,3	.68,7	.70,7
Colombia	Silver peso	.43,9	.43,4	.44,3	.43,6	.42,7	.43,6	.43,8	.45,1
Ecuador	do	.43,9	.43,4	.44,3	.43,6	.42,7	.43,6	.43,8	.45,1
India*	Silver rupee	.20,8	.20,6	.21	.20,7	.20,3	.20,7	.20,8	.32,4
Mexico	Silver dollar	.47,7	.47,2	.48,1	.47,4	.46,4	.47,3	.47,6	.49,0
Persia	Silver kran	.08,1	.08	.08,2	.08	.07,9	.08	.08,1	.08,3
Peru	Silver sol	.43,9	.43,4	.44,3	.43,6	.42,7	.43,6	.43,8	.48,7

*The commercial value of the rupee to be determined by consular certificate.

FOREIGN WEIGHTS AND MEASURES.

The following table embraces only such weights and measures as are given from time to time in CONSULAR REPORTS and in Commercial Relations:

Foreign weights and measures, with American equivalents.

Denominations.	Where used.	American equivalents.
Almude	Portugal	4.422 gallons.
Ardeb	Egypt	7.6907 bushels.
Are	Metric	0.02471 acre.
Arobe	Paraguay	25 pounds.
Arratel or libra	Portugal	1.011 pounds.
Arroba (dry)	Argentine Republic	25.3175 pounds.
Do	Brazil	32.38 pounds.
Do	Cuba	25.3664 pounds.
Do	Portugal	32.38 pounds.
Do	Spain	25.36 pounds.
Do	Venezuela	25.4024 pounds.
Arroba (liquid)	Cuba, Spain, and Venezuela	4.263 gallons.
Arshine	Russia	28 inches.
Arshine (square)	do	5.44 square feet.
Artel	Morocco	1.12 pounds.
Baril	Argentine Republic and Mexico	20.0787 gallons.
Barrel	Malta (customs)	11.4 gallons.
Do	Spain (raisins)	100 pounds.
Berkovets	Russia	361.12 pounds.
Bongkal	India	832 grains.
Bouw	Sumatra	7,096.5 square meters.
Bu	Japan	0.1 inch.
Butt (wine)	Spain	140 gallons.
Caffiso	Malta	5.4 gallons.
Candy	India (Bombay)	529 pounds.
Do	India (Madras)	500 pounds.
Cantar	Morocco	113 pounds.
Do	Syria (Damascus)	575 pounds.
Do	Turkey	124.7036 pounds.
Cantaro (cantar)	Malta	175 pounds.
Carga	Mexico and Salvador	300 pounds.
Catty	China	1.333⅓ (1⅓) pounds.
Do*	Japan	1.31 pounds.
Do	Java, Siam, and Malacca	1.35 pounds.
Do	Sumatra	2.12 pounds.
Centaro	Central America	4.2631 gallons.
Centner	Bremen and Brunswick	117.5 pounds.
Do	Darmstadt	110.24 pounds.
Do	Denmark and Norway	110.11 pounds.
Do	Nuremberg	112.43 pounds.
Do	Prussia	113.44 pounds.
Do	Sweden	93.7 pounds.
Do	Vienna	123.5 pounds.
Do	Zollverein	110.24 pounds.
Do	Double or metric	220.46 pounds.
Chih	China	14 inches.

*More frequently called "kin." Among merchants in the treaty ports it equals 1.33⅓ pounds voirdupois.

Foreign weights and measures, with American equivalents—Continued.

Denominations.	Where used.	American equivalents.
Coyan	Sarawak	3,098 pounds.
Do	Siam (Koyan)	2,667 pounds.
Cuadra	Argentine Republic	4.2 acres.
Do	Paraguay	78.9 yards.
Do	Paraguay (square)	8.077 square feet.
Do	Uruguay	Nearly 2 acres.
Cubic meter	Metric	35.3 cubic feet.
Cwt. (hundredweight)	British	112 pounds.
Dessiatine	Russia	2.6997 acres.
Do	Spain	1.599 bushels.
Drachme	Greece	Half ounce.
Egyptian weights and measures	(*See* CONSULAR REPORTS No. 144.)	
Fanega (dry)	Central America	1.5745 bushels.
Do	Chile	2.575 bushels.
Do	Cuba	1.599 bushels.
Do	Mexico	1.54728 bushels.
Do	Morocco	Strike fanega, 70 lbs.; full fanega, 118 lbs.
Do	Uruguay (double)	7.776 bushels.
Do	Uruguay (single)	3.888 bushels.
Do	Venezuela	1.599 bushels.
Fanega (liquid)	Spain	16 gallons.
Feddan	Egypt	1.03 acres.
Frail (raisins)	Spain	50 pounds.
Frasco	Argentine Republic	2.5096 quarts.
Do	Mexico	2.5 quarts.
Frasila	Zanzibar	35 pounds.
Fuder	Luxemburg	264.17 gallons.
Garnice	Russian Poland	0.88 gallon.
Gram	Metric	15.432 grains.
Hectare	do	2.471 acres.
Hectoliter:		
Dry	do	2.838 bushels.
Liquid	do	26.417 gallons.
Joch	Austria-Hungary	1.422 acres.
Ken	Japan	6 feet.
Kilogram (kilo)	Metric	2.2046 pounds.
Kilometer	do	0.621376 mile.
Klafter	Russia	216 cubic feet.
Koku	Japan	4.9629 bushels.
Korree	Russia	3.5 bushels.
Kwan	Japan	8.28 pounds.
Last	Belgium and Holland	85.134 bushels.
Do	England (dry malt)	82.52 bushels.
Do	Germany	2 metric tons (4,480 pounds).
Do	Prussia	112.29 bushels.
Do	Russian Poland	11⅜ bushels.
Do	Spain (salt)	4,760 pounds.
League (land)	Paraguay	4,633 acres.
Li	China	2,115 feet.
Libra (pound)	Castilian	7,100 grains (troy).
Do	Argentine Republic	1.0127 pounds.
Do	Central America	1.043 pounds.
Do	Chile	1.014 pounds.
Do	Cuba	1.0161 pounds.
Do	Mexico	1.01465 pounds.
Do	Peru	1.0143 pounds.
Do	Portugal	1.011 pounds.
Do	Uruguay	1.0143 pounds.
Do	Venezuela	1.0161 pounds.
Liter	Metric	1.0567 quarts.

Foreign weights and measures, with American equivalents—Continued.

Denominations.	Where used.	American equivalents.
Livre (pound)	Greece	1.1 pounds.
Do	Guiana	1.0791 pounds.
Load	England (timber)	Square, 50 cubic feet; unhewn, 40 cubic feet; inch planks, 600 superficial feet.
Manzana	Costa Rica	1⅘ acres.
Do	Nicaragua and Salvador	1.727 acres.
Marc	Bolivia	0.507 pound.
Maund	India	82⅔ pounds.
Meter	Metric	39.37 inches.
Mil	Denmark	4.68 miles.
Do	Denmark (geographical)	4.61 miles.
Milla	Nicaragua and Honduras	1.1493 miles.
Morgen	Prussia	0.63 acre.
Oke	Egypt	2.7225 pounds.
Do	Greece	2.84 pounds.
Do	Hungary	3.0817 pounds.
Do	Turkey	2.85418 pounds.
Do	Hungary and Wallachia	2.5 pints.
Pic	Egypt	21¼ inches.
Picul	Borneo and Celebes	135.64 pounds.
Do	China, Japan, and Sumatra	133⅓ pounds.
Do	Java	135.1 pounds.
Do	Philippine Islands	137.9 pounds.
Pie	Argentine Republic	0.9478 foot.
Do	Castile	0.91407 foot.
Pik	Turkey	27.9 inches.
Pood	Russia	36.112 pounds.
Pund (pound)	Denmark and Sweden	1.102 pounds.
Quarter	Great Britain	8.252 bushels.
Do	London (coal)	36 bushels.
Quintal	Argentine Republic	101.42 pounds.
Do	Brazil	130.06 pounds.
Do	Castile, Chile, Mexico, and Peru	101.61 pounds.
Do	Greece	123.2 pounds.
Do	Newfoundland (fish)	112 pounds.
Do	Paraguay	100 pounds.
Do	Syria	125 pounds.
Do	Metric	220.46 pounds.
Rottle	Palestine	6 pounds.
Do	Syria	5¾ pounds.
Sagen	Russia	7 feet.
Salm	Malta	490 pounds.
Se	Japan	0.02451 acres.
Seer	India	1 pound 13 ounces.
Shaku	Japan	11.9305 inches.
Sho	do	1.6 quarts.
Standard (St. Petersburg)	Lumber measure	165 cubic feet.
Stone	British	14 pounds.
Suerte	Uruguay	2,700 cuadras (see cuadra).
Sun	Japan	1.193 inches.
Tael	Cochin China	590.75 grains (troy).
Tan	Japan	0.25 acre.
To	do	2 pecks.
Ton	Space measure	40 cubic feet.
Tonde (cereals)	Denmark	3.94783 bushels.
Tondeland	do	1.36 acres.
Tsubo	Japan	6 feet square.
Tsun	China	1.41 inches.
Tunna	Sweden	4.5 bushels.

Foreign weights and measures, with American equivalents—Continued.

Denominations.	Where used.	American equivalents.
Tunnland	Sweden	1.22 acres.
Vara	Argentine Republic	34.1208 inches.
Do	Castile	0.914117 yard.
Do	Central America	32.87 inches.
Do	Chile and Peru	33.367 inches.
Do	Cuba	33.384 inches.
Do	Curaçao	33.375 inches.
Do	Mexico	33 inches.
Do	Paraguay	34 inches.
Do	Venezuela	33.384 inches.
Vedro	Russia	2.707 gallons.
Vergees	Isle of Jersey	71.1 square rods.
Verst	Russia	0.663 mile.
Vlocka	Russian Poland	41.98 acres.

METRIC WEIGHTS AND MEASURES.

Metric weights.

Milligram ($\frac{1}{1000}$ gram) equals 0.0154 grain.
Centigram ($\frac{1}{100}$ gram) equals 0.1543 grain.
Decigram ($\frac{1}{10}$ gram) equals 1.5432 grains.
Gram equals 15.432 grains.
Decagram (10 grams) equals 0.3527 ounce.
Hectogram (100 grams) equals 3.5274 ounces.
Kilogram (1,000 grams) equals 2.2046 pounds.
Myriagram (10,000 grams) equals 22.046 pounds.
Quintal (100,000 grams) equals 220.46 pounds.
Millier or tonnea—ton (1,000,000 grams) equals 2,204.6 pounds.

Metric dry measures.

Milliliter ($\frac{1}{1000}$ liter) equals 0.061 cubic inch.
Centiliter ($\frac{1}{100}$ liter) equals 0.6102 cubic inch.
Deciliter ($\frac{1}{10}$ liter) equals 6.1022 cubic inches.
Liter equals 0.908 quart.
Decaliter (10 liters) equals 9.08 quarts.
Hectoliter (100 liters) equals 2.838 bushels.
Kiloliter (1,000 liters) equals 1.308 cubic yards.

Metric liquid measures.

Milliliter ($\frac{1}{1000}$ liter) equals 0.0388 fluid ounce.
Centiliter ($\frac{1}{100}$ liter) equals 0.338 fluid ounce.
Deciliter ($\frac{1}{10}$ liter) equals 0.845 gill.
Liter equals 1.0567 quarts.
Decaliter (10 liters) equals 2.6418 gallons.
Hectoliter (100 liters) equals 26.417 gallons.
Kiloliter (1,000 liters) equals 264.18 gallons.

Metric measures of length.

Millimeter ($\frac{1}{1000}$ meter) equals 0.0394 inch.
Centimeter ($\frac{1}{100}$ meter) equals 0.3937 inch.
Decimeter ($\frac{1}{10}$ meter) equals 3.937 inches.
Meter equals 39.37 inches.

Decameter (10 meters) equals 393.7 inches.
Hectometer (100 meters) equals 328 feet 1 inch.
Kilometer (1,000 meters) equals 0.62137 mile (3,280 feet 10 inches).
Myriameter (10,000 meters) equals 6.2137 miles.

Metric surface measures.

Centare (1 square meter) equals 1,550 square inches.
Are (100 square meters) equals 119.6 square yards.
Hectare (10,000 square meters) equals 2.471 acres

CONSULAR REPORTS.

COMMERCE, MANUFACTURES, ETC.

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TYPESETTING MACHINES IN EUROPE.

Under date of June 8, 1900, a Department instruction was sent to certain consular officers in Europe, requesting information as to the use of typesetting machines abroad. The replies received* are as follows:

BELGIUM.

Consul Roosevelt writes from Brussels, July 18, 1900:

Several of the leading newspapers of Brussels use typesetting machines of various makes and of English, Dutch, and German origin. As far as I can learn, no American typesetting machine is used here. The machine at present enjoying greatest favor is the English Linotype duplex machine, costing, with accessories, special material for type not included, £624 ($3,036.69).

It is also impossible to learn the exact number of machines in use here or to ascertain the cost of operation. The expense of repairs depends greatly upon the engineer in charge. If he is a careful as well as skillful machinist, these are unimportant. The cost for gas used as motor power, etc., may be estimated at 50 francs ($9.65) per day.

Proprietors, foremen, typesetters, and workmen in general, excepting union printers, who are extremely hostile, have received the machines with favor. The one important obstacle to the introduction of typesetting machines into private printing establishments is the impossibility of utilizing the material on hand, such as movable type, etc.

*ADVANCE SHEETS of which have been sent to the inquirer—a resident of Massachusetts—at whose instance the instruction was sent.

The field for these machines may be said to be large, in view of the fact that the employment of typesetting machines is rapidly increasing. No definite opinion, however, can be obtained as to the relative success of, or preference for, any machine now on the market.

There is at present only one book-printing establishment using a typesetting machine. The reason given by other book-printing establishments for not using it is that they have material, such as movable type, etc., on hand which can not be utilized if the present system of printing is abandoned.

FRANCE.

Consul Skinner, of Marseilles, June 28, 1900, says:

Upon receipt of the inquiries with respect to the use of typesetting machines in France, I placed myself in communication with Messrs. Moullot fils ainé, proprietors of the largest printing establishment in Marseilles and having twelve branches in various parts of this country. The firm named is decidedly the most important in France, I am persuaded, and the information which it has been good enough to submit to me in writing I consider absolutely reliable. The communication says:

> At the present time, no printing establishment in Marseilles, nor in the southern part of France, is employing typesetting machines of any description. Where used, these machines are called upon to render certain services, almost exclusively for newspaper composition and works of magnitude. Some few establishments in Paris alone are now employing Linotype machines for the composition of some of the important daily newspapers.
>
> The congress of French printers, recently held in Paris and which was attended by our Mr. Moullot, occupied itself particularly with this important question; but the discussion has always been confined to the Linotype machine. As to that denominated the Mergenthaler,* there has been no question.
>
> However, in view of the example given to us by the United States, where it appears that about two thousand composing machines are now actually in use, many of the French printers at this moment are studying the matter very seriously, and experiments are about to be made which will complete those already made, and if, as there is every reason to believe, the results are satisfactory, it is probable that within a short time the use of composing machines will become general.
>
> In so far as we are ourselves concerned, we put ourselves at your disposition, to experiment with any machine in our works, and if this enters into the views of the manufacturer, we may be able—thanks to our relations with all the important printing establishments of France—to charge ourselves with the sale of this system for all the French Departments and the city of Paris.

The field for the use of typesetting machines in France is extensive. The French are distinctively a reading people, every city of

*Note by Consul.—I believe that the Mergenthaler interest has been absorbed by the Linotype manufacturers.

consequence possessing a newspaper of large circulation, and, as the distribution of stereotype plates among local publishers is unknown in France, all these papers depend upon local labor for composition.

Although there are proportionately fewer large establishments in France than in the United States, it seems to me that this deficiency is more than made good by the necessities of the daily newspapers, for the reason just mentioned.

Consul Tourgée, of Bordeaux, under date of June 23, 1900, reports that he is informed by the head of one of the largest printing establishments in that city that no typesetting machines are in use in the consular district, and that their introduction would be attended with great difficulties and risks.

GERMANY.

Consul-General Mason sends the following, dated Berlin, July 28, 1900:

In reply to Department instruction, I have with some difficulty obtained the following information from a source which I believe to be trustworthy. In the absence of any published or officially confirmed statistics, I am unable to do more than submit the subjoined replies to the interrogatories.

The number of typesetting machines in use in this district is, as nearly as can be ascertained, about one hundred and seventy.

Their first cost is about 11,000 marks ($2,618) each. Their use is not sufficiently general, nor have the machines been long enough employed, to furnish reliable statistics as to the cost of operation and repairs. One firm which has three machines in use writes off annually 10 per cent of the cost of the machines for wear and depreciation, but from experience now considers this percentage excessive.

The machines have been in general favorably received by employer and employees. At first the typographical union, an association which includes practically all typesetters in Berlin, manifested some hostility to the new system; but the representative of the typesetting machines judiciously invited the president of the typographical union to examine the machine and made arrangements by which the members of the union took up the study of the linotype system and furnished the men who now operate the machines.

At first, printing establishments were somewhat slow and conservative in recognizing and admitting the advantages of the machines over hand composition; but at present the tide has set definitely in their favor, and German manufacturers are now unable to fully supply the demand for them.

The practical use of typesetting machines in Berlin began about three years ago. Among the leading manufacturers are:

(1) Ludwig Loewe & Co., Berlin, who make a machine known as the "Typograph."

(2) Berliner Maschinenbau Aktiengesellschaft vorm. L. Schwartzkopff, 17 Chausée Strasse, Berlin. This company makes the "Linotype" machine.

(3) Messrs. Fischer & Krecher, 15 Neue Jacob Strasse, who make the "Monoline" machine.

(4) A. Borsig, of Berlin, one of the largest makers of electrical, steam, and other machinery in Germany, has recently decided to take up the manufacture of typesetting machines.

The field for the introduction of American typesetting machines in Germany would seem to be favorable, provided they can be adapted to German print and furnished as cheaply as those of home manufacture. This demand will be likely to continue until German makers have increased their output sufficiently to supply the trade. The entry of a firm like A. Borsig into this new field means that within two or three years the supply of German-made machines will probably cover all home demands, unless the American or other foreign makers can produce a better machine than can be made here, or furnish it at a lower price.

In view of the low cost of skilled labor in Germany, the excellent equipment and large facilities of the German manufacturers now engaged in the business, added to the cost of freight and duty on imported machinery, it is probable that in the end the German makers will practically control their home market for typesetting machinery.

Typesetting machines are used for both newspaper and book composition in Germany, and a most promising market for such machinery would be Leipzig, which is the principal seat of book publication in this country.

Consul-General Guenther writes from Frankfort, June 29, 1900:

From the most reliable sources of information, it would appear that there are fifteen typesetting machines used in the Frankfort consular district. They are owned by four firms. The Intelligenz Blatt, of Frankfort, has four Linotype duplex machines; the Volksblatt, of Frankfort, two Linotype machines; Voigt & Gleiber, print-

ers, eight Typograph machines; Mahlau & Waldschmidt, printers, one Linotype machine. Linotype machines cost from 10,000 to 12,000 marks ($2,380 to $2,856); Typograph, from 7,000 to 8,000 marks ($1,666 to $1,904). As these machines have not been in use for more than two years, cost of repairs has so far been insignificant.

The cost of operation of the three machines of the Intelligenz Blatt is 31.80 marks ($7.57) per day for attendants, 1.20 marks (28 cents) for electrical power, 1.85 marks (43 cents) for gas, 1 mark (24 cents) for loss of metal; total, 36 marks ($8.52). The machines were first looked upon with disfavor, but the prejudice has been overcome, as they give entire satisfaction.

The Linotype machines are manufactured by the Mergenthaler factory, at Berlin; the Typograph, by the Typograph Company, Berlin.

As American machines are superior to the German make, the prospects for the former ought to be good in Germany, especially as wages have considerably increased here within the last few years and the supply of labor seems to be inadequate to the demand in every branch. Typesetting machines are in use in book-printing establishments here in Frankfort, as already stated, and are also employed* by the following book-printing firms: Oscar Brandstetter, Leipzig, twenty-four machines; Politik printing establishment, Prague, three machines; A. Beha, Metz, three machines; Emil Thieme, Kaiserslautern, three machines.

Under date of July 14, 1900, Consul Warner, of Leipzig, says:

There are, as nearly as I can find out, forty-one typesetting machines in use in this city. Twenty-four are Typograph machines and sixteen are Mergenthaler Linotype machines. The former are manufactured in Berlin by the Typographia Company and are sold at between 5,500 and 6,000 marks ($1,309 and $1,428) per machine; the latter are furnished by the Schwartzkopff Machine Company, of Berlin, who are German general agents for the Mergenthaler Linotype Company. Parts of these machines are manufactured in the United States, especially the type, the other parts, however, being made in the Berlin factory. These machines cost, set up in running order, 12,000 marks ($2,856) apiece. Typesetting machines were introduced into this city about three years ago. At first the typographers were naturally opposed to them. The machines, however, were found to be so practicable, time saving, and economical that they soon became very popular with proprietors and foremen. The

*According to the Mitteilungen des Typograph.

number of Mergenthaler machines will be rapidly increased, as new machines have already been ordered.

If Leipzig is to retain the important position in the book trade which it occupies to-day, it seems to me that it will be necessary eventually for the printers to purchase many new machines to fit themselves with modern printing implements. The typesetting machines which are used for bookwork in this city are the twenty-four Typographs. They are all in one printing establishment, the Typographia Company having made an agreement with the Leipzig house not to sell or let any of its machines to any other firm in this city.

It is claimed by Leipzig printers that Mergenthaler machines have not been sufficiently perfected to do economical bookwork, labor being so cheap here that up to the present time setting type by hand has been found to be more advantageous, as a general rule.

Consul Weber writes from Nuremberg, July 31, 1900:

About twenty-three typesetting machines have been for two years in use in Bavaria. They are all of American make, and are used only for newspaper print. They are the so-called "Linotype" machines from the Mergenthaler Company, in Boston, and were mostly imported direct from the United States; but now the Schwartzkopff machine factory in Berlin has acquired the sole right to manufacture them in Germany, and orders for Linotype machines for Germany are now executed there.

My informant told me that the first cost of his three duplex Linotype machines, delivered free at Nuremberg, was 12,000 marks ($2,856) per machine. The cost of operation he was unable to give, but the cost of repairing was very small—perhaps from $12 to $20 per machine annually.

These Linotype machines work well, I hear, and give general satisfaction; any prejudice against them, if it existed among the workmen, has long since been overcome.

There are also two German makes of typesetting machines, viz, the Typograph from the Typograph Company, Limited, in Berlin, and the Monoline, made by Ludwig Loewe & Co., in Berlin.

The demand of the book-printing establishments is not so large as to require the use of these costly machines; besides, my informant considered the above-mentioned German Typograph machine to be better adapted for book printing. However, he does not think that there are any Typograph or Monoline typesetting machines in use in this Kingdom.

GREAT BRITAIN.

Consul Boyle writes from Liverpool, July 30, 1900:

Replying to Department's instructions of June 8 in regard to typesetting machines, I beg to make the following report, answering seriatim the interrogatories submitted:

Speaking generally, the use of typesetting machines in this consular district, and England as a whole, is not so common as in the United States. As near as I can ascertain, there are about fifty-six typesetting machines in use in this consular district, all of them being in Liverpool.

The Linotype machine costs here about £500 ($2,433), and the Hattersley about £400 ($1,946). The average annual cost of repairs is placed at about £16 ($77.86).

I am informed by the firms using typesetting machines that the machines have been well received by the proprietors, as well as by the foremen, typesetters, and workmen generally.

Beyond the characteristic indisposition to utilize labor-saving contrivances, there does not seem to have been any particular prejudice against typesetting machines among compositors of this city. At first, there was a fear that a number of workmen would be thrown out of employment as the result of the use of machines; but, so far as I can learn, there are about as many compositors employed now as before the machines were used, and the fear indicated above has been dissipated.

So far as I am informed, the following makes of machines are in use in Liverpool: The Linotype, thirty-eight machines; the Hattersley, sixteen machines; the Monotype, two machines. The Linotype machine has been in use here for about fifteen years, the Hattersley for about four years, and the Monotype for three years.

Several leading printing firms inform me that there is but little prospect now for the introduction of additional machines in this city, as most of the offices likely to require them have already been supplied, and yet several daily newspapers and a number of large printing concerns do not use typesetting machines.

Liverpool is not a book-publishing headquarters, although some books are published here, and several book-printing establishments in Liverpool use typesetting machines.

ITALY.

Consul Jarvis sends the following from Milan, September 6, 1900:

The number of typesetting machines in use in this consular district is extremely limited. There are only two—one of the Monoline model (made in Berlin) and the other of the Linotype model, held here in deposit by Girod & Co. for the maker. The cost of operation and of annual repairs I have not been able to ascertain, as neither machine has been long in use (about eight months) nor used exclusively.

There are various opinions as to the efficiency of these machines. Some consider them absolutely impracticable, while others think that in time their use would bring about radical changes. The only workmen seriously prejudiced against them were those of the Tipografia Camera dei Deputati, of Rome.

There is very little call for typesetting machines, but if it should be thought worth while to attempt to introduce them, Milan would be the only city in this district in which there could be any hope of sales.

These machines are not yet used in book-printing establishments, the reason being that the makers have not Latin characters sufficient for Italian typography. This is a defect which affects the Monoline more than the Linotype.

Consul-General De Castro writes from Rome, July 26, 1900:

The printing establishment of the Tribuna, the largest newspaper published in Rome, has seven Linotypes in use; there is one in use at the printing office of Parliament; one is used by the Messaggero, another Roman newspaper; and another in the book-printing establishment of Voghera. The machine was introduced a year or so ago. I can obtain no satisfactory information as to cost, repairs necessary, etc.

I am assured that the impression caused by the machines has been favorable, but there is great hesitation on the part of proprietors as to purchasing. This may be owing to the fact that hand labor in Italy is very ill paid and is naturally adverse to the introduction of any labor-saving machines. This prejudice still exists on the part of the workmen.

I am told that by special contracts of the Manchester concern, competition of other firms is barred, and I do not believe that the field for these machines is very extensive.

The reason so few machines are used and why the field is so limited is that most printing establishments in this part of Italy are

very small and employ hardly any labor beyond the proprietor and may be a son or two and some small boy. Their capital is small, and it is doubtful whether they could save sufficient money to invest in a machine. It must also be considered that the people as a rule do not read as much as the Anglo-Saxon races. The same daily paper will pass from hand to hand, thus limiting very largely the issue of said periodicals and the consequent chance of the use of typesetting machines.

I may add that the proportion of illiterates is still very large in the southern provinces of Italy.

NOBEL PRIZES FOR SCIENTIFIC DISCOVERIES.

The Department has received a note from the legation of Sweden and Norway, dated Washington, September 11, 1900, inclosing copy (in French) of the laws and regulations relating to the Nobel bequest.* The first award will take place December 10, 1901. A summary of the inclosure (printed by L'Imprimerie Royale, P. A. Norstedt & Söner, Stockholm, from whom copies can doubtless be obtained) follows:

LAWS AND REGULATIONS.

The three corporations awarding the Nobel prizes are:

(1) The Royal Academy of Sciences, at Stockholm, founded in 1739. The King is the protector of the academy, which numbers 100 Swedish and Norwegian members and 75 foreign members.

(2) The Swedish Academy, at Stockholm, instituted in 1786. The King is the protector. The members, exclusively Swédish, are limited to 18.

(3) The Carolin Institute of Medicine and Surgery, at Stockholm, established in 1815. The number of professors is 22.

OBJECT OF THE ENDOWMENT.

The Nobel endowment is based on the will of Dr. Alfred Bernhard Nobel, engineer, drawn up November 27, 1895. The stipulations are as follows:

"The remainder of the fortune which I shall leave shall be disposed of in the following manner: The capital, converted into safe investments by the executors of my will, shall constitute a fund the interest of which shall be distributed annually as a reward to those who, in the course of the preceding year, shall have rendered the greatest services to humanity. The sum total shall be divided into five equal portions, assigned as follows:

"(1) To the person having made the most important discovery or invention in the department of physical science.

"(2) To the person having made the most important discovery or having produced the greatest improvement in chemistry.

"(3) To the author of the most important discovery in the department of physiology or of medicine.

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*See CONSULAR REPORTS No. 201 (June, 1897).

"(4) To the author having produced the most notable literary work in the sense of idealism.

"(5) To the person having done the most, or the best, in the work of establishing the brotherhood of nations, for the suppression or the reduction of standing armies, as well as for the formation and the propagation of peace conferences.

"The prizes will be awarded as follows: For physical science and chemistry, by the Swedish Academy of Sciences; for works in physiology or medicine, by the Carolin Institute of Stockholm; for literature, by the Academy of Stockholm; finally, for the work of peace, by a committee of five members, elected by the Norwegian Stortung. It is my expressed will that nationality shall not be considered, so that the prize may accrue to the most worthy, whether he be a Scandinavian or not."

The testamentary stipulations above cited serve as a basis for the regulations relating to the Nobel endowment, together with the explanations and the more detailed provisions contained in the present law, as well as in the deed of compromise, amicably brought about June 5, 1898, with certain of the heirs of the testator, and according to which the said heirs, after an agreement concluded on the subject of a less important portion of the property left by Dr. Nobel, declared that they accepted the will of Dr. Nobel and renounced in all contingencies, for themselves and for their descendants, all claim for the remainder of the succession of the said Dr. Nobel and all share in the administration of the legacy; they abandoned, also, all right to protest against the interpretations or additions to the will or other limitations relative to its execution, and to the employment of the capital which might be now, or in the future, made by decision of the King or by competent authorities. The following reservations are, however, expressly stipulated:

(*a*) That the common law for all the authorities charged with the distribution of the prizes, and governing the manner and the conditions of the distribution, prescribed by the will, must be drawn up by common consent with a representative delegated by the family of Robert Nobel and submitted to the approval of the King.

(*b*) That the following principles can not be deviated from, viz:

(1) That each of the annual prizes established by the will must be awarded at least once in the course of every period of five years, commencing with the year immediately following that in which the Nobel endowment shall enter on its functions, and that the sum total of a prize thus awarded shall in no case be less than 60 per cent of the part of the yearly revenues, disposable for the distribution of the prizes; neither can it be divided into more than three prizes at the most.

(2) By the title "Academy of Stockholm" written in the will is understood the Swedish Academy.

By the word "literature" must be understood not only works purely literary, but also any other writing possessing by its form and its style a literary value. The limitation of the will declaring that the annual distribution of prizes must be directed to works executed "in the course of the preceding year" must be interpreted in this sense, that the objects of the rewards shall be the most recent results of research displayed in the departments indicated by the will; older works will be considered only in the event that their importance shall have been demonstrated in recent times.

(3) In order to be admitted to the competition, every written work must have been published by means of the press.

(4) The sum total of a prize may be divided equally between two works, if it be judged that each of them has merited the prize. If the work rewarded is the work of two or of several assistants, the prize can be awarded to them in common. Any work the author of which is deceased can not be the object of a prize; how-

ever, in case of death after the proposal for a reward has already been presented in the prescribed forms, the prize may be awarded. Each one of the corporations having the conferring of prizes has the right to decide whether the prize may be adjudged to an institution or to a society.

(5) According to the plain intention of the will, a work can not be rewarded unless experience or a competent examination shall prove its preponderant importance. If none of the works submitted to the competition possess the quality desired, the sum total of the prize is reserved for the following year. If then the prize can not be distributed, the amount is deposited in the principal funds, unless three-fourths of the persons voting shall decide to establish with it a special fund for the section. The revenues of such a fund may, according to the decision of the corporation, be employed to encourage, otherwise than by the distribution of prizes, the tendencies aimed at in the first place by the donor. Each special fund will be administered with the principal fund.

(6) For each section of Swedish prize, the competent corporation shall designate a "Nobel committee," composed of three or five members, who shall give their advice upon the conferring of the prize. The necessary examination for the awarding of the peace prize shall be made by the committee of the Norwegian Stortung mentioned in the will. In order to be named a member of a Nobel committee, it is not necessary to be a Swedish subject nor to belong to the corporation charged with the conferring of the prize. The members of a Nobel committee can receive a suitable fee for their work, which will be determined by the competent corporation. In a special case, if it is judged necessary, the corporation can designate a competent person to take part as a member in the deliberations and in the decision of the Nobel committee.

(7) For admission to the competition, it is necessary to be proposed in writing by a qualified person. No attention will be paid to requests addressed by persons desiring to obtain a prize themselves. It is explained further on who are considered qualified. The annual competition considers proposals which have been offered in the course of the year immediately preceding up to the date of February 1.

(8) Every proposal must be accompanied by the writings and other documents upon which it is founded. If the proposal is not drawn up in either one of the Scandinavian languages or in English, French, German, or Latin, or if, for the appreciation of the proposed work, the body having to award the prize finds itself, for the most part, obliged to take cognizance of a writing composed in a language whose interpretation would cause special difficulties or considerable expense—in either of these cases, the corporation will not be obliged to proceed to a detailed examination of the proposal.

(9) At the solemn reunion, which takes place on the anniversary of the death of the donor, December 10, the corporations will make known publicly their decisions and bestow upon each laureate a check for the value of the prize, a diploma, and a gold medal bearing the effigy of the donor, with an appropriate legend. The laureate is obliged, unless prevented, to give during the six months following the reunion a public lecture on the subject of the work crowned. This lecture will be given in Stockholm or, for the peace prize, in Christiania.

(10) Decisions in regard to the awarding of prizes are without appeal. It is forbidden to insert a difference of opinion in the procès verbal, or to reveal it in any other manner.

(11) Corporations have the right to establish scientific institutions and other establishments, in order to secure assistance for the examination which must precede the distribution of the prizes, and to serve, from other points of view, the aim of the endowment. These institutes and establishments, which form part of the endowment, shall be called "Nobel institutes."

(12) Every Nobel institute is placed under the direction of the body which founded it. They are independent as regards their exterior situation and their finances; consequently, their revenues can not be utilized by the corporations awarding the prizes, nor by any other institution to cover the expenses of their private budgets. Professors having a fixed salary in a Nobel institute can not hold a like position at the same time in any other institution, unless by special authorization of the King. Corporations may install Nobel institutes on a common site, giving them an uniform organization; they can attach foreigners, men and women, to the institute.

(13) One-fourth of the revenues of the principal fund, which each section disposes of annually, is reserved. After the payment of the immediate expenses for the distribution of the prizes, the rest of the amount reserved is employed in defraying the expenses of the Nobel institute in each section. The balance, after paying the expenses of the year, is set aside for the future needs of the institute.

MANAGEMENT OF THE ENDOWMENT FUND.

The board of administration is composed of five Swedish members, one of whom—the president—is named by the King; the others are chosen by representatives of the corporations. The managing director is chosen by the board from among its own members. Members and substitutes are elected for a term of two years, commencing May 1. The board of administration manages the endowment fund and all property common to the sections, pays the prizes and the expenses attendant on their distribution, the expenses of the Nobel institutes, engages all employees, determines the amount of their appointments and of their pensions, is empowered to appoint proxies, to prosecute and to answer, to plead and to act in the name of the endowment. The corporations awarding the prizes appoint fifteen representatives for two civil years. The Academy of Sciences chooses six and designates four substitutes; the other corporations each appoint three, with two substitutes. The representatives, called together by the oldest representative of the Academy of Sciences, elect one of their number as president. Nine votes, at least, are necessary to make a decision. A corporation failing to send representatives does not prevent the others from acting. The management and accounts of the board are examined every civil year by five examiners; each corporation appoints one, the King naming the fifth, who acts as president. The report upon the management must be given to the president before the end of February. The examiners must present their report to the representatives of the corporations before April 1. This report, giving a résumé of the employment of the different funds, will be published in the newspapers. The failure of any corporation to appoint an examiner, or of an examiner to act, does not prevent the other members from proceeding with the examination. Examiners, and also the head of the Department of Public Instruction and Worship, have free access to all books, accounts, and documents of the endowment.

All the investments of the fund must be examined and verified at least once a year. The representatives of the corporations have the right to decide, after the report of the examiners, whether the board of administration or any one of its members shall be discharged, or any other action taken against them. The King determines the salary of the managing director. The tenth part of the yearly net income of the principal fund is added to the capital; the interest of the sum destined for the prizes is added to the same fund until the distribution in prizes or otherwise.

TRANSIENT PROVISIONS.

Immediately after the approval of the King of the statute of endowment, the corporations will designate the stipulated number of representatives, who will assemble at Stockholm and elect the members of the board of administration, who

will have the management of the endowment fund at the beginning of the year 1901. The executors of the will will take appropriate measures to terminate the settlement of the succession. The first distribution of prizes for all sections will take place, if possible, in 1901. From the endowment resources will be deducted: First, a sum of 300,000 crowns ($80,400) for each section—that is, 1,500,000 crowns ($402,000) in all—which, with the interest commencing from the 1st of January, 1900, will be used to cover, in proportion, the expenses of the organization of the Nobel institutes, in addition to the sum the board of administration shall judge necessary for the acquisition of a special site destined for the administration of the endowment and including a hall for its meetings.

SPECIAL RULE GOVERNING THE AWARDING OF THE NOBEL PRIZES BY THE ACADEMY OF SCIENCES, ETC.

The right of presenting proposals for prizes belongs to—

(1) Native and foreign members of the Royal Academy of Sciences.

(2) Members of the Nobel committees for natural philosophy and chemistry.

(3) Professors who have received the Nobel prize of the Academy of Science.

(4) Ordinary and extraordinary professors of natural sciences and chemistry in the universities of Upsal, Lund, Christiania, Copenhagen, and Helsingförs, in the Carolin Institute of Medicine and Surgery, the Superior Technical, Royal School, as well as to the professors of the same sciences in the Stockholm High School.

(5) Incumbents of corresponding chairs of at least six universities or high schools, which the Academy of Science will select, taking care to divide them suitably between the different countries and their universities.

(6) Learned men, to whom the academy shall judge proper to send an invitation to this effect.

The invitations shall be sent every year in the month of September. Proposals for the prize must be made before February 1 of the following year. They are classified by the Nobel committee and submitted to the college of professors. The Nobel committee decides which of the works presented shall be submitted to a special examination. The college of professors will pronounce definitely on the distribution of the prize in the course of the month of October. The vote is taken in secret; if necessary, the question may be decided by drawing lots.

SPECIAL RULE GOVERNING THE AWARDING OF THE NOBEL PRIZE BY THE SWEDISH ACADEMY, ETC.

The right to present candidates for the Nobel prize belongs to the members of the Swedish Academy, the French Academy, and the Spanish Academy, which resemble the Swedish Academy in their organization and aim; to the members of the literary departments of other academies, as well as to the members of literary institutions and societies analogous to academies; to professors of æsthetics, of literature, and of history in the universities. This order must be published at least every five years.

TELEGRAPHING AND TELEPHONING SIMULTANEOUSLY OVER ONE LINE.

An article in the Elektrotechnische Zeitschrift discusses the progress made in the use of single lines for telegraphing and telephoning simultaneously. After describing the Rysselberghe system of attaining this end, and fully explaining the important part played

by condensers, the writer describes a modification of the system, recently introduced by the Telephone Works, Limited, of Hanover, which, it seems, has already been adapted to a number of large installations, including the Berlin fire-brigade service.

There are fifteen brigade stations in Berlin, each of which is served by a special network of fire alarms. From these stations underground wires radiate in all directions, each wire being connected with a great number of alarm pillars. The alarms are arranged for automatic working, and to each is fitted a key for telegraphing to the station. As it is, however, a very great advantage to be able to maintain during the progress of the fire a good connection between the alarm pillars nearest the fire and the brigade station, exhaustive trials have been made with a specially adapted telephone constructed by the above-mentioned firm, which have resulted in the general introduction of the same. To the Morse apparatus at the station a stand is attached, from which a microtelephone fitted with a battery switch and a second receiver are suspended. The remaining apparatus is inclosed in a flat box and placed under the table. This box contains an induction coil, a condenser, and a circuit key. As it would be expensive to equip each of the fire-alarm posts with telephone apparatus, a portable set is used, which may be attached to the posts by means of a plug and socket provided for the purpose. Such a portable set is carried by each of the brigade carts, there being some eighty now in use. The brigades' cycles are also equipped with sets which are very compact in design. Experience with the system has shown that the switching in of the telephone apparatus in no way influences the telegraph service. During simultaneous telegraphing and telephoning a slight knocking is perceptible in the telephone, which, however, does not destroy the audibility.

RICHARD GUENTHER,
Consul-General.

FRANKFORT, *August 9, 1900.*

TRADE-MARKS IN DENMARK.

In continuation of the report dated July 4, 1900,* on abuses of American trade-marks in Denmark, I submit the following as to the means necessary to secure a trade-mark in this country:

In order that an American citizen or firm may get a trade-mark registered in Denmark, it is necessary, as a preliminary step, that the same trade-mark be registered in the United States.

*ADVANCE SHEETS No. 804 (August 10, 1900); CONSULAR REPORTS No. 241 (October, 1900).

For effecting the registration of a trade-mark in Denmark, the following documents, etc., are required:

(1) A power of attorney signed by the petitioner (who must be the same party to whom the corresponding trade-mark in the United States belongs). This signature must be authenticated by a Danish consul in the United States.

(2) An official extract from the United States trade-mark register showing that the mark in question has been duly registered in the United States. This extract has also to be authenticated by a Danish consul.

(3) Two electro blocks of the mark, one of which must be mounted on a metal base. The mark must not exceed 15 centimeters (5.9 inches) in width or 10 centimeters (3.9 inches)in height, and the electros must be deeply cut.

(4) Six prints of the mark on strong white paper.

I may add that the requirements for the registration of a trade-mark in other Scandinavian countries are the same as for Denmark.

Prompt action should be taken by American manufacturers to prevent the appropriation of their trade-marks by unscrupulous foreign firms.

JNO. C. FREEMAN,

COPENHAGEN, *September 15, 1900.* *Consul.*

TRADE-MARKS IN GERMANY.

It appears necessary to recall the attention of American exporters to a very peculiar provision of the German law for the registration of trade-marks, which is not infrequently used to the great and unjust disadvantage of Americans and other foreigners. Under the German statute, any person may register and secure the right to any name or other device used as a trade-mark which has not previously been registered here by some other firm or person. In other words, the officials before whom the application is brought make no inquiry to ascertain whether the applicant has ever used the proposed trade-mark or has any right to it, but simply look over the record to ascertain whether it has been registered in Germany. If not, it is admitted to registration without further inquiry or delay.

The readiness with which such a practice can be abused is apparent. When, several years ago, American bicycles began to be imported into Germany, certain persons interested in blocking the trade got the trade-marks of two or three makers registered in their own names, and either obliged the legitimate American owners of the trade-marks to buy them off—in other words, to pay a

species of blackmail—or to change the marks on all bicycles exported to Germany.

In a recent case, the trade-mark on a special brand of American preserved fruit was registered here by an outsider, so that the real owner had to buy from the usurper the right to use his own trade-mark in this country.

This abuse has become so notorious that a leading patent attorney of Berlin, writing in a recent number of the Technische Rundschau, says of the law that its effect is to legalize and facilitate the theft of a trade-mark.

The obvious suggestion to all American exporters is that before exporting or seeking to export to Germany any kind of merchandise covered by a well-known name, whether registered in the United States as a trade-mark or not, they should have such name or trade-mark duly registered in this country, where all such rights are carefully protected and prosecutions for infringements easy and effective.

FRANK H. MASON,
Consul-General.

BERLIN, *September 24, 1900.*

WORKING OF THE GERMAN LAW AGAINST SPECULATION IN GRAIN.

In response to the request of the Department* for a more detailed report of the practical effects of the German law restricting speculation in stocks and forbidding operations in grain futures, I have to report as follows:

The statute in question was enacted in 1896, and, with the exception of one paragraph relating to exchange registers, went into effect on the 1st of November in that year. Its effective provisions relating to speculation in grain are contained in paragraphs 3 and 4, the first of which prescribes that—

> All dealings in futures or on term at the exchange are prohibited unless all parties to the transaction are entered in the so-called exchange register. Persons omitting to have their names entered on the exchange register have no legal claims against each other by reason of any transactions on term. Such claims are considered gambling debts.

Paragraph 5 declares that—

> The term business, or dealing in futures in grain and mill products or stocks of mining and manufacturing establishments on the exchange, is entirely forbidden.

The law as it was enacted was inspired by the Agrarian party in Germany, which includes most landowners and representatives

* Made at the instance of a Western journal, the editor of which has received proof. See ADVANCE SHEETS No. 660, February 21, 1900 (CONSULAR REPORTS No. 235, April, 1900); also CONSULAR REPORTS No. 194 (November, 1896).

of agricultural interests, and its avowed purpose was to steady the market values of securities and especially cereals, which, as the Agrarians claimed, were unduly depressed and disturbed by speculations in which grains were bought and sold on exchange for future delivery. The law is a drastic and radical piece of class legislation, and its enforcement during the past three and a half years has constituted an experiment which has naturally been watched with interest by the economists of other countries. As to its effects, opinions differ in accordance with the interests and preconceived ideas of the person consulted. The Agrarians claim that while it has not increased the market values of home-grown cereals in the German markets to the extent that was expected, it has at least rendered them more steady and uniform; that it has given Germany an autonomous home market, dominated by their own grades and qualities of grain and controlled by German conditions of supply and demand, independent of the markets at Odessa, Antwerp, Liverpool, or Chicago; and, finally, that it has stimulated and elevated the morals of trade—the sale or purchase, on paper, of produce not actually in sight being considered, from the Agrarian standpoint, to be immoral.

On the other hand, the commercial and industrial classes of business men in this part of Germany, including also many of the more intelligent agriculturists, seem convinced that the whole effect of the law has been abortive, and not only of no practical advantage, but a positive injury to the interests of German agriculture.

It is of course impossible to harmonize opinions so radically diverse as these, and it only remains for the impartial student of this subject, who seeks to get at the truth—whatever it may prove or disprove—to follow the register of grain imports, prices, and other facts of record during the past three years and see what bearing they have upon the point of dispute.

It was hoped by the framers and advocates of the law that its effect would be to restrict the importation of foreign grain, but statistics show that grain imports—which are governed here, as elsewhere, by the relation between consumption and local supply—have increased rather than diminished. The population of the Fatherland is rapidly increasing; all classes of working people here have been more prosperous during recent years than ever before, and the consumption of wheat and the better grade of rye bread has become more general. The harvests of Germany have not been able to meet this growing demand, and consequently imports of both these cereals have increased, as might have been readily foreseen.

The claim of the Agrarians that the effect of the law has been to render steady and uniform the prices of cereals is not confirmed by the record or expert opinion, so far as the latter can be obtained.

For instance, during the summer and autumn season of 1897–98, the natural influence of a good harvest reduced prices, and the German farmers, being all at sea as to the harvests of other countries and therefore at the mercy of a few well-informed speculators, hastily sold a large part of their crops (estimated at 3,400,000 tons) at low rates for export to France, England, and Austria. When, later in the season, the general wheat market rose nearly $25 per ton above the summer rate, the deficit created by this excessive export had to be filled by importations from the United States and Russia. Commercial experts writing on the teachings of that episode assert that the prohibition of legitimate speculative operations in grain kept the price in Germany for a long time from $6 to $10 below where it would otherwise have been, and thus facilitated the excessive exports which afterwards had to be replaced and made up for at such heavy cost to the people. As it failed to sustain the price of home-grown cereals during the season of plenteous harvest, so also the law failed to restrict in any way the actual importations of foreign-grown grains when the needs of public consumption required them. In proof of these conclusions, it is only necessary to follow the course of the market during that period and trace each successive fluctuation to its obvious and recognized cause.

In the year 1897, when the statute first went into effect, wheat cost in Berlin about 180 marks ($42.84) and rye 130 marks ($30.94) per metric ton. In June of the same year, these grains stood at 150 marks ($35.70) (sold) and 115 marks ($27.37), respectively, or about the lowest price that has been reached. From then on the prices began to rise continuously, with small setbacks, until the 9th of May, 1898, when wheat reached 270 marks ($64.26) and rye 185 marks ($44.03) per ton. There was therefore a fluctuation in the course of that year of 120 marks in the price of wheat and 70 marks in that of rye. From the 10th of May, the prices began to fall so rapidly and suddenly that in the first half of August of the same year wheat stood at about 150 marks ($35.70) and rye at about 127 marks ($30.22) per ton; that is, a decline in three and a half months of 120 marks ($28.56) per ton in wheat and of 60 marks ($14.28) in rye. Since then, the prices for wheat have fluctuated between 140 marks ($33.32) and 170 marks ($40.46) and rye between 135 marks ($32.13) and 155 marks ($36.89) per ton.

The reasons for these large fluctuations without sale by commission were as follows:

The partial failure of crops in Hungary and France and light harvests in Russia caused a rise in the world's market for wheat and rye, which was further sustained by reductions of grain duties in France, Spain, and Italy, by the operations of Mr. Leiter, at Chicago,

and especially by the gathering clouds of the Spanish-American war. As a direct normal result of these causes, prices were high during the winter of 1897–98 and only yielded when the favorable spring weather and fine outlook for large crops of both spring and winter wheat broke the market and brought prices down to their natural level. Corn and oats passed through similar fluctuations, showing that only the elementary forces of nature really control the grain market. The German statute against speculations was powerless to produce any other result than that of rendering the farmers subject to the whims of local millers and small traders.

The high average price which rye maintained in Germany during 1898 and 1899, which Agrarian economists sometimes ascribe to the influence of the law of 1896, is easily traceable to the other facts: light crops in Russia—the source of Germany's chief foreign supply—the increased consumption of rye bread by the Russian peasantry, and the consequently greatly diminished supply for export from that country.

Finally, there is the interesting if somewhat less important question, What has been the effect of the law upon the commercial classes, members of produce exchanges, and chambers of commerce in Berlin and the other leading grain marts of Prussia, viz, Stettin, Magdeburg, Halle, Danzig, and Königsberg? Upon this point, the testimony of experts is practically unanimous and conclusive. The market editor of the leading financial journal of Berlin says, in a special report:

> The effects of the law of 1896 upon the legitimate interests of the bourse have been disastrous. One class of business men—the commission merchants—has wholly disappeared. Through its important and direct connections with the provinces and foreign countries, Berlin was formerly one of the most influential markets of Europe, but since the law against grain futures went into force, it has dropped to the rank of a small provincial market. For providing Germany with grain during periods of stringency and short home supply, the system of buying and selling on commission is indispensable. It protects the importer from the danger of a heavy decline in prices by enabling him to dispose of his imports at the same time that they are ordered. To some extent, Berlin merchants have speculated during the past three years through agents in Liverpool, New York, and Chicago, and this with the apparent knowledge and tacit approval of the German Government, which realizes that the German grain market is controlled by influences outside of this country and that Germany can not play an independent rôle in relation to the supply and price of breadstuffs.

In view of the importance and technical difficulties of this subject, it has been deemed advisable to obtain for the purposes of this report, from a high and impartial German authority, a formal review of the conditions which led to the enactment of the antigrain-option law, its effects, so far as they can now be estimated, and what prospect, if any, there is of an early modification or repeal of the

statute. For this purpose, application was made to a Berlin jurist of high standing and ripe experience in the practice of commercial law, who has with great courtesy prepared for this report the following statement:

The grain traffic in Germany, which forty years ago had a limited scope and importance and which, partly because of the limited demand and partly on account of the restricted development of the railway system, was confined mainly to the interior of the Empire, has since then gradually but solidly increased as Germany became more and more unable to produce the requisite supply of cereals. First from Austria, then from Russia, then from other grain-exporting countries came especially wheat, until finally it became necessary to supply the demand by drawing upon the general wheat market of the world.

It thus followed that international commercial usages were adopted in Germany, and among these dealings in grain futures, which had been found necessary and requisite. This international grain trade developed rapidly in Germany and centered especially in the chambers of commerce at Mannheim and Berlin.

During the early nineties, an unusually large number of bankruptcies on the stock exchange attracted public opinion in this country much more closely to the general conditions of business on the bourse, and led to an official inquiry into the subject.

Meanwhile, the Agrarian party in Germany had acquired such strength and influence as to practically control all measures of legislation. A law governing bourse transactions was enacted, and the Agrarian party, with the hope of raising the inland market price of grain, inserted a clause in the bourse statute absolutely prohibiting the sale and purchase of "futures" in cereals and mill products. At the same time the Prussian Minister of Commerce issued a regulation based on the bourse law, in which he forced the representatives of agriculture into the boards of management of the produce exchanges, and there was chosen for the Berlin bourse the hotspur of the Agrarian party, together with whom the merchants were obliged to decline to work, for the reason that during the recent debates over the bourse law the Agrarian orators had vilified the merchants with shameless abuse. It was especially in consequence of this regulation, which the commercial and financial classes recognized as a direct slap in the face, that the members of the Berlin Produce Exchange declared unanimously (January 2, 1897) that they would no longer remain on the bourse, and they thereupon left it altogether. At the same time, the prosperous grain business of the exchange was completely ruined by the prohibition as to dealing in futures. A number of the principal commercial cities of Prussia, Stettin, Magdeburg, Halle, Danzig, and Königsberg followed the example of Berlin.

In consequence of the absolute impossibility of dispensing wholly with sales and purchases for future delivery, the grain merchants were forced to conduct their business under a plan by which they made at places other than the bourse the so-called legal specified term orders (handelsrechtliche Lieferungsgeschäft), in so far as they related to produce not actually in hand. These specified time contracts are in fact a method of business authorized by commercial law, in which the buyer, in case of nondelivery of the goods on a specified day, must grant (to the seller) a still further extension of time. Meanwhile, the meetings for these operations were recognized by the officials as "exchanges," and were ordered to be discontinued. The results, therefore, of the prohibition of transactions in grain futures in Berlin may be synopsized as follows:

(1) Dealings in futures are necessary and indispensable to dealers, importers,

exporters, and millers for the avoidance of mere gambling in grain. Such dealings prevent sudden fluctuations in prices and equalize the prices of cereals from one harvest to another in accordance with the natural conditions of supply and demand. It is a fact of definite record that since the 1st of January, 1897, our inland cereals, in spite of their good quality, have ruled considerably below the market prices of other countries, a condition which was formerly of rare occurrence and merely temporary.

(2) The legal specified term orders (handelsrechtliche Lieferungsgeschäft) is for a good market like Berlin no adequate substitute for regular dealings in grain futures on a produce exchange.

(3) With the abolition of dealings in futures it became impossible to establish fixed standard prices, while prices that were made by secret transactions have had none of the authority and fixedness that belonged to open, legitimate operations on the bourse prior to January 1, 1897.

(4) The creation of stocks of grain here in Berlin has greatly diminished since the prohibition of dealings in futures.

(5) The legitimate local speculations have been necessarily conducted in foreign markets, where they were subject to high fees and expenses, and to the influence of "corners," all of which would have been avoided had local dealings in futures been permitted.

(6) The so-called "small man" in the grain trade is the one most injured by the suppression of futures—many have been wholly ruined; only a few have been able to maintain a modest and uncertain existence.

(7) The importation of foreign cereals—which covers only a small percentage of the total consumption—has, contrary to the hopes of Agrarians, not been affected one way or the other.

(8) The stability of the grain market during the past three years has been in no way affected by the prohibition of dealings in futures, but has been solely controlled by natural causes (short crops in Germany and foreign countries).

Quite recently, there has been a movement looking toward the reorganization of the produce exchange by means of a revision of the bourse regulations by the Prussian Ministry of Commerce, so as to eliminate the affront to the honor of merchants which is implied by the first regulations (January 1, 1897); and since the bourse law forbids transactions in futures, it is proposed to agree with the Government upon the use of final bills of sale (Schlussscheine) which, while they would not reestablish dealings in futures, would endeavor to provide some sort of substitute for them.

Under this new régime, based upon the final bills of sale (Schlussscheine) which have been approved by the Prussian Government, the bourse ratification for grains and mill products is again reestablished.

On the whole, the Government is thoroughly convinced of the unjustified injury which legitimate commerce has suffered through the prohibition of dealings in grain futures. It knows quite as well as the Agrarians that this prohibition has secured for cereals grown in the interior of Germany no better market and no higher prices. But, in view of the present dominating influence of the Agrarians, whose leaders naturally seek to avoid any confession of their mistakes, the Government is not now in position to secure a repeal of the prohibition.

Such are the verdicts of two men whose positions and experience entitle them to recognition as expert observers of the actual workings of the German antioption law. While their opinions may be to some degree shaped by their interests as members of the commercial

class in Berlin, there can be no doubt that they express substantially the sentiment of the whole industrial and mercantile community in this country, which, in matters of fiscal and economic policy, is opposed to Agrarian exclusiveness and conservatism.

FRANK H. MASON,
Consul-General.

BERLIN, *August 28, 1900.*

THREATENED INDUSTRIAL CRISIS IN EUROPE.

The wave of industrial prosperity in Europe, which has steadily risen since 1895, has taken a turn and begun to recede. All signs point toward a crisis in industrial and financial lines which may occur before two years have passed. Any political disturbance of note may bring on the crisis suddenly and without warning. Coal mining is still "booming," as the supply is not equal to the demand. The iron and steel works, including the manufacture of many lines of machinery and steel plates for war ships, have orders which it will take some months to fill, but factories making small ironware, nails, needles, bicycles, sewing machines, etc., are curtailing production and reducing working forces and wage scales.

There are doubts if the immensely capitalized electrical works of Germany and other countries can keep fully employed after present contracts are filled. This line of industry, which in Germany alone represents an investment of nearly $300,000,000, has been largely instrumental in creating the present boom.

Failures have already begun in the building trade, which in the large cities has been of a speculative nature and rested mainly on borrowed capital. Rents for business houses and dwellings have advanced, but will topple upon the first beginning of a business crisis.

Shipowners are still jubilant, owing to the phenomenal advance in ocean transportation rates which was brought about by the South African war and the present troubles in China.

The German papers speak in alarming tones of the sad position of the textile industry, where stoppages of factories are the order of the day. Late statistics of the Gera district show 6,022 looms idle, out of a total of 11,829. The weavers still employed there earn but 8 to 10 marks ($1.904 to $2.38) per week. This wretched wage, which is to support a family, is next to a starvation rate, especially as fuel and provisions have greatly advanced in price and the poor operative must pay Government tax and school rate besides.

The stock market is the delicate seismometer which denotes the coming upheaval. Shares of industrial companies have already commenced to decline, though the reports of their operations promise

for this year large dividends. The high interest rates which have ruled for money this year and the high taxes which capitalists and business interests must pay in Germany have also tended to affect the boom.

SIMON W. HANAUER,
Vice-Consul-General.

FRANKFORT, *August 29, 1900.*

WOOL CRISIS IN FRANCE.

The crisis in wool, which has been imminent for some time past, has finally culminated, and thirteen of the principal wool houses in Tourcoing and one in Roubaix have suspended payment. The losses in Roubaix and Tourcoing, caused by a falling market, are estimated at 80,000,000 francs ($15,440,000) during the last eight months.

During the last two years, there has been great fluctuation in the price of wool. In the beginning of 1898, combed wool on time was quoted at 4 francs (77.2 cents) per kilogram. This price rose steadily until there was an increase of 90 centimes (17.3 cents) in twelve months. The year 1899 opened with a strong rising market, and in December, 1899, the highest price—6.70 francs ($1.29)—was reached. These two years were prosperous ones to all wool merchants, but 1900 opened with a falling market, and, during the last eight months, wool has fallen in price more than 3 francs (57.9 cents) per kilogram. On August 30, there were no purchasers at 3.50 francs (67.6 cents) per kilogram.

The constant rise in the price of high-grade wools has been accounted for by the dearth of Merino sheep in Australia and Buenos Ayres, where the crossbreeds seem to be driving high-grade wool out of the market.

Pessimistic accounts of the drought in Australia and the mortality among the sheep were circulated in this market, and merchants, fearing a lack of raw material, bought large quantities at excessively high rates. The market became overstocked and, the strikes and high price of coal diminishing the manufacture, merchants were left with their stocks on hand and a falling market.

Another factor to be considered is the immense competition of cotton. Several mills have recently changed their machinery to that for the manufacture of cotton.

The English market has also failed Roubaix this season. A supply based upon the usual demands from England still remains in this market awaiting opportunity for future delivery.

There has been a lively controversy lately as to the effect of time sales, many maintaining that this leads to wild speculations. Between June 1 and December 31, 1899, 20,000,000 kilograms (44,082,000

pounds), valued at 125,000,000 francs ($24,125,000), were registered as the operations in sales on time.

It is estimated that the mills of Roubaix and Tourcoing require not more than 10,000,000 kilograms (22,046,000 pounds) per year. This leaves a large cipher representing speculation pure and simple.

The chambers of commerce of the two towns are now deliberating measures which shall restrain these operations in future.

W. P. ATWELL,

ROUBAIX, *September 1, 1900.* *Consul.*

CRISIS IN THE SCOTCH TWEED TRADE.

For three years the tweed industry in this district—carried on chiefly in Galashiels, Hawick, and Selkirk—has been seriously depressed. This depression has now reached a critical stage. In Galashiels alone a number of firms, employing between 400 and 500 hands in all, have gone out of business, and their factories are standing idle. As a result of the bad trade since 1897, in that town there are nearly 500 workmen's dwellings empty, and the population has decreased fully 2,000. The firms that are still operating find it well-nigh impossible to do business at a profit.

The causes of the present bad condition of the trade are said by manufacturers to be (1) overproduction, (2) foreign tariffs, (3) the displacement of tweeds by flannel suitings, (4) the extreme fluctuations in the price of wool, and (5) foreign competition. The last-named reason is one which the tweed manufacturers have been compelled to recognize only within the past year or two. Several countries that formerly were large consumers of Scottish goods have become considerable producers of the same kind of fabric. This is particularly true of the United States, where the home-made cloth is keeping out the foreign article. As noted in my annual report for 1899,* a leading tweed manufacturer in this district frankly admitted to me that the cloth of this class made in the United States was quite as good in every respect as that produced in Scotland.

Some of the mill owners here profess confidence that there will be a revival of their trade in the near future, while others regard as extremely gloomy the outlook for an industry which has been going down in a time of general prosperity.

RUFUS FLEMING,

EDINBURGH, *October 9, 1900.* *Consul.*

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*See Commercial Relations, 1899, Vol. II, p. 907.

OVERPRODUCTION IN GERMANY.

The Berlin correspondent of the London Daily Mail sends his paper the following report:

The crisis in the German textile trade is spreading. One manufacturer after another has stopped production for an indefinite time, or has dismissed half his hands and cut down the working hours of the remainder.

Overproduction, due to the rapid progress of European trade and to the growth of trade in other countries, such as India, which in former years merely supplied the raw material, is the disease afflicting the textile trade. And with overproduction has come a decline in export business with the United States, owing to the protectionist policy of that country.

In Saxony, some of the carpet makers are only working four hours a week. In central Germany, dismissals on a large scale are reported. Still worse is the state of affairs in Silesia, where dismissals and short hours are combined.

Nor is western Germany in any better state. The silk weavers of Crefeld have dismissed one-third of their hands, and the rest are working short time. In Aix la Chapelle two thousand hands are out of employment. The only bright spot is the velvet industry, which still keeps up its production.

From Alsatia in the west to Silesia in the east the cry is the same—overproduction.

The war has naturally had a bad effect on trade, more particularly on the iron trade. India, for instance, has been constructing numbers of rice mills and had bought the machines in Thuringia. Since the troubles in China arose, this progress has ceased.

In addition to this, I may add that the high price of cotton is causing much distress. Only the other day the spinners of Austria-Hungary, meeting in Vienna, decided to reduce the output by one-sixth. This means that the mills will close down one day per week until next spring. The cause of the whole trouble is the high price of cotton and the impossibility of getting equivalent yarn prices. Many other mills throughout Europe are closing on account of shortage in this article.

ERNEST L. HARRIS,
Consular Agent.

EIBENSTOCK, *September 14, 1900.*

COTTON CONSUMPTION IN GERMANY.

The German Colonial Association recently sent a petition to the Imperial Chancellor requesting that every means be used to introduce cotton growing into the different German colonies where climate and soil would be favorable to the same.

If, for some reason, Germany should be cut off for one year from her cotton supply, there would be a crisis of incalculable consequences.

Of the nations on the Continent, Germany takes the lead in cotton consumption with $71,400,000; that of France and Russia together equals $95,200,000.

Germany, with the exception of about $17,000 worth of cotton grown in one little colony, is entirely dependent for this commodity upon the United States and England. This accounts for her desire to produce her own cotton. Germany, France, and England have never forgotten the years of 1860–62, when their cotton supply was cut off by the blockade of the Southern States.

Again, there is always a tendency on the part of cotton industries to gravitate toward the centers of production, as the following figures, showing the increase of cotton industry from 1885 to 1895, prove:

	Per cent.
England	4½
United States	24
East Indies	45

The real reason of the shifting of cotton mills and manufacturers to the point of production is the money and time saved in transportation, and this is the problem which confronts the German Empire to-day.

JNO. F. WINTER,

ANNABERG, *August 28, 1900.* *Consul.*

EFFECT OF THE CHINESE TROUBLE ON GERMANY.

According to a late estimate made by the German Imperial Navy Department, the amount of German capital invested in China is 300,000,000 marks ($71,400,000). Firearms and ammunition represented the principal item of German export to China in 1899, aggregating 8,000,000 marks ($1,904,000) in value; machinery and ironware amounted to almost as much. Sewing machines and needles footed up 5,400,000 marks ($1,285,200); aniline and other dyes, 6,700,000 marks ($1,594,600); braided goods, 3,100,000 marks ($737,800); cloths and other woolen textiles, 2,200,000 marks ($523,600); ornamental feathers, 700,000 marks ($166,600); cotton hosiery, 600,000 marks ($142,800); beer, 1,000,000 marks ($238,000).

Germany imported from China in 1899:

	Marks.	
Gold	7,700,000	=$1,832,600
Bed feathers	2,700,000	= 642,600
Tea	2,900,000	= 690,200
Raw silk	1,100,000	= 261,800
Braided straw	1,000,000	= 238,000
Cattle skins	800,000	= 190,400

Germany's total exports to China in 1899 were 29,000,000 marks ($6,902,000) in value; her imports from China, 50,600,000 marks ($12,042,800).

Owing to the troubles in China, trade with that country has greatly diminished, and many German manufacturing lines have in consequence suffered severely. According to late press reports, the textile and needle industry of Aix la Chapelle is in sad condition, over 2,000 hands being out of work and 1,000 looms standing idle. In the needle factories, many operators have been discharged and one factory has stopped altogether. Other German industries also complain of reduction in the articles for Chinese trade. On the other hand, complaints come from lines working on raw materials and products mainly imported from China, the advance in prices having handicapped trade.

SIMON W. HANAUER,
Vice and Acting Consul-General.

FRANKFORT, *September 7, 1900.*

GERMAN GOODS IN SOUTH AFRICA.

The September number of the Deutsche Export Zeitung has an interesting article from a commercial expert who has just returned from South Africa on the subject of how German manufacturers may best capture the markets there after the war is ended. He says:

The South African markets will fall to those countries which understand best how to specialize. * * * Samples of articles actually used by the Boer farmers must be collected. The Boer is much more conservative than the Englishman. For every broken pot, for every torn coat, worn-out plow, saddle, and kitchen utensil, the Boer must have one just like it, as nearly as possible, when he buys again. I have observed Boers while buying. They admire everything new which they see in the stores. The glitter and gilt edge pleases them, but they can not be persuaded of its utility. They will go away shaking their heads and will search until they find what they have set their heads on, namely, something just like the old one.

The blacks are far more curious and susceptible. However, this does not mean that they will buy every new thing which they see. On the contrary, their tastes run in definite channels, and only those who know these tastes will be in a position to sell the Kaffir something new. In the neighborhood of the towns the native glories in gaudy clothes and ornaments, especially in cheap jewelry for his wives. In the country, he consumes an enormous amount of tobacco. On the whole, his needs are about the same as those of the farmer.

The whole country presents a great market for tobacco, matches, saddles, harness, bits, household goods, kitchen utensils, hats, caps, ready-made clothing, soap, machinery and parts, wagons, carriages, drugs, medicines, etc.

ERNEST L. HARRIS,
Consular Agent.

EIBENSTOCK, *September 18, 1900.*

GERMAN SUGAR INDUSTRY.

The official year of the German sugar industry is calculated from the 1st of August to the 31st of July, and the Reichsanzeiger has recently published an interesting summary of the production and export of sugar for last year, with a comparison with preceding years, from which the following statement is taken:

While the consumption of raw beets was somewhat greater last year, it was considerably less than some former years. There were consumed last year 12,466,432 tons of raw beets, while the consumption in the preceding year (1899) was 12,150,644 tons. In the year 1897–98, the consumption of raw beets was 13,697,892 tons; in 1896–97, 13,721,601 tons. While in comparison with the preceding year the increase was 315,790 tons, or 2.6 per cent, on the contrary, the beet consumption in the years 1897–98 and in 1896–97 was more than 1,000,000 tons greater than in the year now ended. The sugar production was as follows:

Year.	Raw sugar.	Refined sugar.	Total in raw sugar (including crystallized).
	Tons.	*Tons.*	*Tons.*
1899–1900	1,576,673	1,212,471	1,791,252
1898–99	1,521,716	1,185,922	1,722,429
1897–98	1,664,268	1,207,350	1,844,400
1896–97	1,659,055	1,004,954	1,821,223
1895–96	1,467,437	1,084,395	1,637,057
1894–95	1,692,011	989,862	1,827,974

Accordingly, the raw-sugar production was 54,957 tons and the refined sugar was 26,549 tons greater last year than in the preceding, while the increase in crystallized sugar, which is computed in the last column of raw sugar (nine parts of crystallized sugar being reckoned as ten parts raw sugar), was 68,823 tons, or almost 4 per cent better than last year. The years 1894–95, 1896–97, and 1897–98 produced certainly considerably greater quantities of raw sugar; but the production in refined sugar was in no former year so great as this season. The total production of raw sugar averaged in the five preceding years 1,770,621 tons; consequently, the production last year exceeded the average by 20,631 tons. For the production of 1 kilogram (2.2046 pounds) of raw sugar, 6.96 kilograms (15.3 pounds) of raw beets were, on the average, necessary last year, while in the year 1898–99, 7.05 kilograms (15.5 pounds) of raw beets were necessary. In the year 1897–98, 7.43 kilograms (16.4 pounds), and in the year 1896–97 7.53 kilograms (16.6 pounds), were required. The results were more favorable than in any of the previous years, not excepting the unusually warm year 1895–96, during which 7.13 kilograms (15.7 pounds) of beets were required for the production of 1 kilogram of sugar. The Strontian process played an important part in the extraction of sugar. By means of this process, 91½ per cent of sugar was extracted, as compared with 89 per cent in the year 1898–99.

In spite of the increase in the production of sugar, the export during the last

business year has been less than in the preceding year. There was exported the following quantity:

Year.	Raw sugar.	Loaf sugar.	Total.
	Tons.	*Tons.*	*Tons.*
1899–1900	485,935	417,408	924,562
1898–99	499,603	436,785	956,214
1897–98	478,941	478,812	982,869
1896–97	760,657	405,114	1,186,962

According to this, the export of raw sugar decreased about 13,700 tons and that of loaf sugar 19,000 tons, and the total export, accordingly, decreased 31,700 tons. The figures for the year 1899–1900 include the exports during the five last months of 1899 and the first seven months of 1900. The following table shows the export of sugar to the different countries during the last three official years:

Country.	1899–1900.	1898–1899.	1897–1898.
	Tons.	*Tons.*	*Tons.*
Great Britain	521,981	607,595	628,367
United States	218,540	188,852	142,434
British North America	40,500	51,474	38,474
Free harbor of Hamburg	27,541	9,105	43,292
Japan	20,392	16,074	31,326
Norway	20,233	17,681	17,328
Switzerland	12,654	12,127	12,925
Denmark	11,845	13,004	7,358
Portugal	8,262	7,778	6,765
Uruguay	7,412	1,056	399
Netherlands	6,200	6,801	9,636
Sweden	5,459	8,569	359
Chile	4,024	3,932	5,426
British East Indies	2,557	1,135	20,239
British Australia	1,793	549	2,628

According to this, the export of sugar to Great Britain was 85,614 tons, or 14.1 per cent less last year than in the preceding. Great Britain received, in the year 1898–99, 63.5 per cent of the total export of German sugar; in the year 1899–1900, only 56.6 per cent. On the contrary, the export to the United States increased during last year almost 30,000 tons. In the year 1897–98, the United States took 14.5 per cent of the total German export; in 1898–99, 19.7 per cent; and in 1899–1900, 23.6 per cent. This is so much the more remarkable as the increase was during the period in which new tariff rules were prescribed, which increased the duty on sugars exported from premium-paying countries. Consequently, an additional duty was imposed upon sugar exported from Germany in proportion to the premium paid, and thereby the market for raw sugar, as well as for sugar exported from countries which paid no premium, was favored. The export to British North America decreased during last year because the tariff, by which Canada favors the Mother Country and its colonies, has gone into effect. Also, the export to Sweden, Denmark, and the Netherlands has decreased. On the other hand, the export to Japan, British East Indies, and Australia has increased considerably, in comparison with the great falling off in the year 1898–99. The export to Norway has also increased.

TALBOT J. ALBERT,

BRUNSWICK, *September 14, 1900.* *Consul.*

BEET-SUGAR INDUSTRY OF FRANCE.

"Beet Sugar in France from 1800 to 1900" is the title of a quarto volume of two hundred and twenty pages and fifteen engravings, recently brought out by M. Jules Helot. It is a complete history of the sugar industry in this country and a review of the legislation and the inventions that have aided or retarded its progress since the first protective decree under Napoleon I up to the ninety-eighth law enacted during the presidency of the late Félix Faure.

The beginning of the industry in France was really under Napoleon I, in 1810–12, when he established five great schools for study and instruction in "sugar chemistry" and four large imperial sugar mills, exempt from all taxation.

M. Helot follows the discoveries and inventions by which the yield of the beet has been increased from 2 per cent in 1810 to 12 per cent in 1900.

There are now in France three hundred and forty sugar factories, the average production of which has increased threefold in eighteen years. They consume 540,000 pounds of beets every twenty-four hours. The average daily consumption of Germany is 860,000 pounds. Since 1888, the consumption of coal in the sugar mills of France has fallen from 442 pounds to 286 pounds per ton of beets.

The following table gives the product of raw sugar for the countries named:

Country.	1869–70.	1879–80.	1889–90.	1899–1900.
	Metric tons.	*Metric tons.*	*Metric tons.*	*Metric tons.*
Germany	217,000	415,000	1,261,000	1,790,000
Austria-Hungary	180,000	420,000	799,000	1,200,000
Russia	130,000	300,000	526,000	900,000
France	289,000	478,000	755,000	805,000
Belgium	46,000	75,000	173,000	300,000
Holland	13,000	24,000	56,000	180,000
Other countries	3,000	8,000	87,000	275,000
Total	878,000	1,720,000	3,657,000	5,450,000

Although France has almost trebled her production in the last thirty years, she has fallen from the first place in 1870 to the fourth place in 1900, and to-day there is a difference of 120 per cent between her and Germany. In France, 255,000 hectares (630,105 acres) are devoted to the cultivation of the beet, against 427,000 hectares (1,055,117 acres) in Germany. The product of beets per hectare in Germany is nearly 30,000 kilograms, and in France it is 28,000

kilograms. Moreover, in France the yield is 12 per cent, while in Germany it is over 13 per cent.

Since 1896, while there has been a very high protective tariff on sugar—in fact, an increasing tariff—the price has been steadily declining.

The Economist Français, in reviewing this subject, says:

> England, the only country that excludes the manufacture of beet sugar, consumes more sugar than any other nation and buys it at the lowest price. A pound of sugar in England is cheaper than a pound of bread, and the Englishman pays no more to consume 55 pounds of sugar per year than the Frenchman pays for 32½ pounds. The per capita consumption in France since 1870 was 33 pounds, while in England it was over 80 pounds.

It is perhaps proper to state that one reason why the French people consume so little sugar is because their ways of living require less of that article. For the great mass of the French people, breakfast consists of a bowl of soup, which is also frequently a part of the two other meals. Their drink is wine, and, as they use but little tea or coffee, especially in the country, there is scarcely any demand for sugar. They make neither preserves nor cake in the family. The usual dessert is fruit and cheese.

The high tax of 5 cents per pound on sugar is pretty fully paid by the well-to-do people who live in the cities and who take coffee or chocolate for breakfast and a small cup of black coffee after dinner.

JOHN C. COVERT,

LYONS, *August 17, 1900.* *Consul.*

THE AUSTRIAN GLOVE INDUSTRY.

The glove industry in Austria has shown a remarkable growth within the past few years. In 1880, the total production of gloves within the Empire was about 500,000 dozens; in 1897, it had risen to 1,750,000 dozens; and at the present time it is not far from 2,000,000 dozens. The city of Prague records the greatest gain. The number of establishments increased there from 100 in 1880 to 195 in 1899; the number of cutters, from 453 to 1,600; and the number of gloves manufactured, from 236,000 to 1,000,000 dozens. Vienna follows with 170 establishments (against 213 in 1880), 500 cutters (360 in 1880), and 275,000 dozen gloves (187,000 dozen in 1880). The decrease in the number of establishments in the latter city is to be accounted for by the prevailing tendency toward concentration.

In the Erzgebirge, the third most important center of the Austrian glove industry, the production has increased from 243,000 dozens in 1890 to 342,000 dozens in 1899.

Austria at present not only supplies almost her entire home

demand for gloves, but also exports this article to the value of over $6,000,000 per annum.

The only foreign makes imported are Krimmer gloves (which are produced at remarkably low rates in Chemnitz) and buckskin and mocha gloves from Germany, superfine kid gloves from France, and sporting gloves from England.

The Austrian glove industry has not prospered without experiencing severe trials. It has had to meet increased foreign competition and lower prices; but, with cheaper labor and an increased capacity of its factories, it has continued to compete successfully even in German markets. There are now in the Empire a number of establishments capable of turning out 100,000 dozen gloves per annum.

The principal market of the Austrian glove manufacturer is England, where recently a large demand has sprung up for silk-lined (Milanese) gloves, a demand which is at present supplied almost exclusively by Austria.

The export to the United States, which was considerable up to 1897, has shrunk to about 20 per cent of its former amount. In the two years from 1897 to 1899, its value decreased from $492,000 to $99,831.

FREDK. W. HOSSFELD,

TRIESTE, *September 18, 1900.* *Consul.*

AUSTRIAN PROTESTS AGAINST EXPORT OF TIMBER.

Ever since the beginning of the railroad era, Austria has been preeminent among the countries of Europe as an exporter of timber. For many years, the large export of the products of her rich forests was pointed to by her people with pride and rejoicing. But there has been a marked change of opinion, and voices may now be heard everywhere denouncing these shipments.

Austrian economists claim that the forests of this Empire feed the German industries to the great detriment of home manufactures. They direct attention to the fact that when with Germany's remarkable economic development the demand for timber, lumber, railroad ties, staves, parquetry, veneers, etc., increased and the governments of the various states by timely and prudent legislation prevented the devastation of their own forests, German builders and manufacturers came to Austria for their material and have ever since been supplied here with a large portion of the sinews of the industrial war which, by their successful competition in foreign markets,

they have been indirectly waging against the manufacturing interests of this Empire.

Applied to the last decade, this argument is certainly lame; for it can not be denied that Austria then shared with Germany the profits resulting from the improvement of the raw products of her forests. In recent years, however, the transactions appear to have been much less to her advantage.

The customs statistics show that while previous to the conclusion of the present commercial treaty between the two countries (December 6, 1891), Austria's exports in this line consisted almost exclusively of sawed lumber, railroad ties, staves, parquetry, and cellulose, they have since that time been composed mainly of raw material, because, under the operation of the new treaty, the German manufacturers found it to their advantage to buy, as far as possible, raw material and improve it at home. The export of sawed lumber, wooden ware, etc., has practically been stationary since 1891, while the quantity of crude timber exported has increased from 7,759,000 tons to 15,139,000 tons, of 2,204.6 pounds per ton.

A number of industrial associations recently addressed to the Austrian Government a memorial, from which I quote the following:

> The boundless exportation of raw timber from Austria threatens to become a great economic danger. The advantage derived therefrom is illusive, bearing no relation to the damage which our industries and trades suffer in consequence thereof. It therefore becomes necessary to take measures to prevent this enormous exportation of crude timber.

Among the restrictive measures suggested are the following:

(1) An increase in freight rates on crude timber intended for export.

(2) Taxation, for State and provincial purposes, of foreign timber merchants doing business in Austria.

(3) The enactment of stricter forestry laws.

(4) Discrimination in favor of home industries in the sale of timber from Government forests.

(5) Provisions in future tariff treaties tending to reduce the export of crude timber, or else imposition of an export duty on such timber.

The present commercial treaty with Germany will expire next year, and it remains to be seen to what extent the Austrian Government will be able—or rather will find it to the general advantage of the Empire—to heed these protests. It is, however, not at all improbable that Germany will in the near future have to look elsewhere for sources of supply to meet her ever-increasing demand for timber.

FREDK. W. HOSSFELD,
Consul.

TRIESTE, *September 18, 1900.*

No. 243——3.

BRITISH EFFORTS TO EXTEND FOREIGN TRADE.

That Great Britain intends to make every possible effort to retain her present great foreign trade and to still further develop it is well understood by those who study commercial matters in this country. Her merchants and manufacturers are up and doing in many directions, and the London Times in to-day's issue proclaims a new movement, announcing that the commercial expedition organized by the Bristol Chamber of Commerce to visit the West Indies, in order to promote British trade in those islands, left Southampton yesterday on the Royal Mail steamship *Orinoco*. Continuing, the Times says:

The expedition, which is under the charge of Mr. de Courcy Hamilton, who has had an extensive connection in the West Indies, is taking over 100 cases of samples of all descriptions of merchandise, most of the chief manufacturers within 100 miles of Bristol being represented. It is proposed to open an exhibition in Jamaica, to hold conferences, organize lectures, and in every possible way to bring under the notice of the population of the West Indies the merits of the English goods shown. The opening of the new fast mail and fruit service between Bristol and Jamaica in January next has stimulated the merchants of the west of England in the direction of improving the export trade to Jamaica and the neighboring colonies, and it is hoped that a large increase in this business will result from the present venture.

MARSHAL HALSTEAD,

BIRMINGHAM, *September 20, 1900.* *Consul.*

MAKING BRICKS FROM GLASS-WORKS REFUSE IN ENGLAND.

Dr. Ormandy, of St. Helen's, formerly master of science at the Gamble Technical Institute, that city, has recently discovered a process by which good furnace bricks can be made from glass-works refuse. St. Helen's, which is a few miles from Liverpool and within this consular district, is not only the center of the English chemical trade, but contains a number of large glass works. The millions of tons of refuse which have accumulated around the glass works heretofore have been treated as of no commercial value. The refuse consists mainly of spent sand, minute particles of glass, and about 3 per cent of iron from the various processes, and it has hitherto been considered that the presence of the iron prevented the use of the material for the manufacture of bricks.

Patents have been taken out to protect the process, and a large

firm has engaged Dr. Ormandy's services. After making various experiments, the firm is now putting up an extensive plant for the manufacture of the bricks. It is claimed that the bricks will stand a great amount of heat. They are about the color of silica bricks and can be glazed. Considerable secrecy is observed as to the process.

JAMES BOYLE,

LIVERPOOL, *September 21, 1900.* *Consul.*

SODA-WATER FOUNTAINS IN GREAT BRITAIN.

In a window of a chemist's shop (drug store) in the Grand Hotel block, on Colmore row, Birmingham, there has been for two months a sign on an American soda fountain advertising various sodas and phosphates. The fountain has been a striking success. The proprietor is an enterprising man who is ready to try new things. Following the installation of the fountain came hot weather, and on one day he sold one thousand glasses of various flavors; on other days, six or seven hundred glasses; and even during recent cooler weather there has been a profitable business. The winter use of the soda fountain having been explained, he expects to build up a hot-beef-tea, hot-clam-juice (if he can get the clam juice), and soda-tonics trade. It was not possible to introduce ice-cream soda this season, owing to the small size of the shop. Doctors called and denounced the use of soda water, fearing harmful effects from the dangerous ice-cold liquid—and then took it themselves, just as they do at home. The success of this fountain is another indication of the growth of the ice habit in England. Colmore row is a great thoroughfare, but is not as likely a place for a soda-water fountain as is crowded New street. It seems that an American soda-fountain syndicate has taken up the matter of the introduction of soda-water fountains in England and is determined to, and will, succeed. They offered inducements this summer in prices, etc., to anyone in any British city who would put in the first fountain, and a number of cities have them now in successful operation.

MARSHAL HALSTEAD,

BIRMINGHAM, *September 8, 1900.* *Consul.*

VEHICLES AND AUTOMOBILES IN COLOGNE.*

Cologne is the only city in this consular district in which the manufacture of vehicles is an industry of any importance.

There are fifteen what are termed "large factories" by the trade, and each of these makes from 20 to 70 horse vehicles yearly. The average last year was 45 vehicles per factory. Many small two-wheeled wagons or carts for hand use are also manufactured, as well as a number of dog wagons, 75 of these being made by each of the factories last year.

Most of the horse vehicles are made to order; they consist principally of drays or transport wagons. Pleasure vehicles are imported principally from France and England.

The total capital represented in this industry in Cologne is about 5,000,000 marks ($1,190,000). The net earnings of each of the three largest factories average 33,000 marks ($7,850) yearly.

There is undoubtedly a market for American vehicles in this district, providing the same are manufactured to suit the trade.

AUTOMOBILES.

There are in all about 130 automobiles and motor wagons in use in the city of Cologne, and most of these were manufactured here.

Police regulations require that all automobiles and motor wagons shall be registered. The speed at which they are allowed to run must in no case exceed 12 kilometers (7.4 miles) per hour. The average selling prices are about as follows: Tricycles, 1,200 marks ($285.60); small four-wheelers, 3,000 marks ($714); and carriage sizes, 8,000 marks ($1,904).

The future of the automobile seems assured, not only for the freight wagon, but for the pleasure vehicle as well.

The following are the names and addresses of the manufacturers and dealers in Cologne:

Allgemeine Betriebs-Actien Gesellschaft (manufacturers), Wolfstrasse 1a.

B. Castenholz (dealer), Aachenerstrasse 25.

Emil Cazin (dealer), Blaubach 44.

Ernst Heinrich Geist (manufacturer), Zollstock, Hüningerweg.

Rudolph Hagen (manufacturer), Hohenstaufenring 32.

Gustav Helmke (dealer), Blindgasse 2.

Carl Hoppe (dealer), Schildergasse 70.

Küln. Elektric-Actien Gesellschaft (dealers), Richmondstrasse 13.

* Received too late for publication in Special Consular Reports, Vehicle Industry in Europe.

Louis Lefrere & Cie. (dealers), Hansaring 17.

Maxwerke Electrik and Auto. Gesellschaft (manufacturers), Hohenaufenring 14.

Heinrich Scheele (manufacturer), Mastricherstrasse 41–43.

J. B. Utermöhle (manufacturer), Friesenplatz 25.

CHAS. E. BARNES,

COLOGNE, *August 20, 1900.* *Consul.*

PROPOSED CHANGES IN THE GERMAN TARIFF.

I have learned from a reliable source that the Royal Prussian Minister of Commerce has invited the corporations in charge of commercial interests to communicate to him, before the middle of September, if possible, suggestions with regard to the rearrangement of the customs tariff law of the 15th of July, 1879. Particular stress is laid by the minister on the following points:

(1) It is proposed that the rule according to which duty is to be paid on the gross weight of goods should be put into practice to a still larger extent, while on the other side it has been recommended that duty should be paid on the net weight of the merchandise. The simple way of getting goods through the custom-house speaks in favor of the first-proposed measure, while the fact that the effect of this measure would be uneven and unjust, and people would be induced to import their goods with poor or no packing, speaks strongly against it. If, to counteract this, a certain percentage for packing were added to goods too lightly packed, the custom-house work would be too much delayed. On duty being charged on the net weight, the passing of the goods through the customs might be simplified by laying down fixed rates to be allowed for packing.

(2) It is proposed that all packing materials that go into the hands of the purchaser on being sold at retail—as, for instance, bottles, tins, cardboard boxes, paper, and strings—should be added to the net weight as heretofore, but it is a matter for serious consideration whether or not the old habit of allowing free entry for the heavy packing materials, such as barrels, cases, etc., should be continued, as the manufacturers of cases, barrels, etc., would not be sufficiently protected against foreign competition if this were to be allowed.

(3) According to the union customs tariff of the 1st of July, 1869, all articles which have no particularly specified duty in the tariff have been allowed to enter free of duty; the question now is whether or not it would be correct to classify these goods under the same heads as those which they most closely resemble, either in their composition or in the purpose for which they are destined.

(4) It is considered very doubtful whether there is still a necessity for the practice of granting a three months' respite on the payment of duty, without any interest being charged. At present, owing to the great development of the traffic and of the means of conveying goods, the circulation of merchandise has been greatly accelerated, and the consensus of opinion is that this old rule should be dispensed with; or, if allowed, the charging of moderate interest is deemed advisable.

OLIVER J. D. HUGHES,

COBURG, *August 10, 1900.* *Consul.*

INCOME-TAX EVASIONS IN PRUSSIA.

The following statements, published for the first time by the Bureau of Direct Taxes, of Prussia, are of interest to taxpayers:

In 1899, 482,526 declarations for taxes were made, of which 102,894, or 25.1 per cent, were formally objected to by the authorities.

Before these were so objected to, 29,727, or 6.2 per cent of the total, had been corrected with reference to the objections of the tax commissions. Of the 102,894 statements objected to, 96,358, or 79.9 per cent, were changed and 24,536, or 5.1 per cent, were accepted as made originally.

The corrected statements increased the taxable income 28 per cent, or $49,000,000, and the taxes 34.1 per cent, or $1,700,000.

Statistics show that the number of appeals and complaints against the income tax is on the decrease, although the number of taxpayers is increasing. In the three years from October 1, 1896, to September 30, 1899, 3,986 penalty cases occurred, on which the penalties amounted to $284,000 and the back taxes to something over $100,000. A number of illustrations of attempted defraudation are given in the official publication, of which I have selected a few.

A merchant had put down his income for two years at 13,041 marks ($3,104), while in reality it amounted to 66,264 marks ($15,771). He kept three small books with false entries in addition to his regular books, solely for the purpose of proving his untrue statements. He had to pay the back taxes due and a fine of $2,850. Similar attempts by others were repeatedly discovered.

Two cattle dealers had each to pay a fine of 4,000 marks ($952) for having their income for four years understated to the amount of 80,000 marks ($19,040).

Two beer brewers had to pay fines of 30,000 marks ($7,140) and 25,000 marks ($5,950), respectively, for making false statements about their income.

A high municipal officer had stated that his income from interest amounted to 600 marks annually; this income was in fact six times as high. The back taxes were collected after his death.

A retired business man had stated his income from interest at 14,200 marks and eventually 19,500 marks, while it in reality amounted to 65,314 marks and eventually 75,905 marks. He was fined 17,250 marks ($4,125).

A very prominent and highly esteemed manufacturer, who had first objected to any investigation with great indignation, was found to have stated his income for three years at 142,000 marks ($33,796),

while it amounted to 197,000 marks ($46,886). He had to pay a fine of 20,800 marks ($4,950).

A highly respected dealer in wines falsified his books, declaring, during six years, an income of 590,000 marks ($140,420), while it amounted to over 1,000,000 marks. He had to pay 130,000 marks ($30,940) as a penalty.

A "rentier," who had not mentioned his income from speculations and thereby had not paid taxes on 447,099 marks ($106,386), had to pay 18,966 marks ($4,514) back taxes and a fine of 14,000 marks ($3,332).

A high-school teacher had concealed an income on which he would have had to pay 374 marks in taxes. He had to pay four times this amount as penalty.

A clerk who had concealed his income on commissions and had stated his salary too low had to pay 5,000 marks ($1,190) back taxes and fine.

The heirs of a director of a bank who for several years had understated his income to the amount of 140,000 marks ($33,320) had to pay 33,035 marks ($7,862) in back taxes.

Among others who had to pay back taxes and heavy fines were a physician who had concealed an inheritance from his father-in-law, two merchants who every year had deducted their household expenses from their income, a lawyer who had concealed his wife's income from interest, etc.

RICHARD GUENTHER,
Consul-General.

FRANKFORT, *August 17, 1900.*

CELLULITH.

Some particulars of cellulith are given in La Revue de Produits Chimiques. It is well known that in the making of paper, a continuous beating of the pulp produces a transparent and elastic mixture which hardens on drying and greatly strengthens the paper. The cellulith is prepared by a process exclusively mechanical—the beating of the pulp for a much longer time than is necessary in the production of mere paper. According to the properties of the pulp and the rate of revolution of the cylinder, the operation may last from forty to one hundred and fifty hours, or until there is a homogeneous mass having no trace of fiber. The air in the substance is removed by beating for two more hours; if allowed to remain it might destroy the regularity of the material. If desired, suitable colors are added, and then the substance is heated, the hot cellulose liquor passing into a vessel having a perforated bottom, through

which it drips. Containing 96 per cent of water, the material has the consistency of thick honey. The water is evaporated either by natural or artificial heat, and the pulp hardens, gradually attaining the consistency of horn, its specific gravity being about 4.5. The cellulith may be worked as is horn or ebonite. Combined with sawdust and 30 per cent lampblack, the result is a kind of dark ebonite; this is dense and may be polished.

RICHARD GUENTHER,
Consul-General.

FRANKFORT, *August 10, 1900.*

BANKERS' RESPONSIBILITIES IN GERMANY.

The imperial supreme court of Germany (the last court of resort and appeal in the Empire) has decided that a banking firm or a company selling stocks or bonds is liable to refund the money to purchasers when any of the statements given in the prospectus published with the issue of said loan or stock are found not to be in accordance with facts. The decision was in a case that came up on appeal from a lower court which had decided against a banking firm that had recommended certain shares of stock of an industrial company as promising—after the first year of its operation—about 5 per cent dividend, and within four or five years thereafter still more. The bankers, as stated by claimant, also recommended the stock-issuing company as being a concern of brilliant future results and the stock as a good and safe investment. The lower court held the first statements of the bankers to be of a general nature which are customary in business usage and not of a character to make them responsible, but decided against the defendants on account of the last-mentioned remarks, which amounted to a guaranty.

The imperial court, on appeal, declared that the bankers were liable under the first-named statements, which they admitted to have been made by them, and which established their liability without regard to the point on which the lower court had formed its judgment.

SIMON W. HANAUER,
Vice-Consul-General.

FRANKFORT, *August 27, 1900.*

AMERICAN FRUITS IN GERMANY.

The prospect for an unprecedented export of American dried prunes, apricots, peaches, and pears, as well as evaporated apples and raspberries, to Germany this autumn and winter is exceedingly bright, provided the crop in the United States is sufficiently plentiful to furnish a large supply at reasonable prices. The popularity of American dried and preserved fruits in this country has increased from year to year, by reason of both their relative cheapness and their unrivaled flavor and excellence, until a leading wholesale dealer in such products at Berlin informs this consulate that his applications from his customers—who are mainly grocers and provision dealers in other towns and cities—are larger this season than ever before and relate almost exclusively to American fruits.

California prunes are rapidly supplanting the fine but expensive French product and the low-grade Bosnian prunes in the German market, and there is nothing here that can successfully compete with the dried pears and peaches and evaporated apples from the United States. It will therefore be of interest to American exporters to know that the tedious and annoying inspection of dried fruits at the German frontier—as a precaution against supposed danger from the San José scale—has been discontinued since the first of last month, so that the way is now open to an unrestricted trade. Last year, the supply of American dried fruits was insufficient to meet the demands of the German market; but this year large contracts have been made by American merchants who, after visiting the Paris exposition, have come to this country and, by way of combining business with travel, have visited the principal German cities and personally offered their products to the more important dealers.

As to fresh fruits, the inspections at the frontier will be still maintained, but, it is believed, in a fair and liberal spirit. It is noted in this connection that hitherto cases of San José scale have been found most frequently among the highest and most expensive class of apples, such as are wrapped in tissue paper and put up in boxes for family and hotel use, whereas such infection has rarely been detected in the common grades of apples, which are packed loosely in ordinary barrels. This probably results from the fact that the choicest American apples come from a State or district specially infected by the scale, whereas the States along the northern frontier—New York, Michigan, Wisconsin, and Iowa—are generally free from it. It is suggested by the German importers that if, before being wrapped and packed, the high-class apples could be wiped or

brushed, especially at the ends of the core, whatever scale exists might be easily removed and thus whole shipments of such expensive fruit, now liable to be condemned, would be enabled to pass the inspection without danger.

FRANK H. MASON,
Consul-General.

BERLIN, *September 11, 1900.*

UNITED STATES TRADE WITH GERMANY.

During the years from 1891 to 1900, inclusive, our trade with the German Empire was as follows:

Year.	Exports from Germany to United States.	Imports into Germany from United States.
1891	$97,316,383	$92,795,456
1892	82,907,553	105,521,558
1893	96,210,205	83,578,988
1894	69,387,905	92,357,163
1895	81,014,065	92,053,753
1896	94,240,833	97,897,197
1897	111,210,614	125,246,088
1898	69,697,378	155,039,972
1899	84,225,777	155,772,179
1900	97,330,095	187,370,199
Total	883,540,806	1,189,632,553

Next to England, Germany presents the greatest field for our products. During the fiscal year ended June 30, 1900, the former country purchased goods from the United States to the value of $553,829,374, or three times as much as Germany. Yet, on the other hand, our exports to England during the past nine years have only increased about 25 per cent, while our exports to Germany show an increase of fully 100 per cent.

The above table shows that the United States tariffs of 1890, 1894, and 1897 have not, on the whole, affected German exports. The unusually large exports (imports from Germany) of 1897 were caused by German merchants forcing shipments before the tariff of that year should become law. This was especially the case with sugar. During the last fiscal year, however, Germany exported $13,104,318 more to the United States than in 1899, showing the increase under normal conditions.

In 1891, England exported to the United States $194,723,262 worth of products. In 1890, she exported $159,583,660 worth, or $35,139,602 less than in 1891; and at no time during the intervening

years did she exceed the amount of 1891. The year which nearest approached it was 1896, and this year shows a minus of nearly $25,000,000. German exports to the United States for 1900 stand at about the same figures as in 1891, showing that the manufacturers of the Empire have been able to hold certain markets. For many years to come, Germany will continue to hold these same markets, for the reason that American manufacturers are not in position to supply them. Therefore, Germany has assured markets in the United States for about $100,000,000 worth of products annually.

Our exports to Germany, especially in food products, will tend to increase. The German Empire consumes about $1,150,000,000 worth of foreign products every year. Of this, grain and farm products amount to $170,000,000; groceries, sugar, etc., $165,000,000; cattle, $35,000,000; and animal products, $31,000,000. The only two countries which will rival the United States in the export of grain to Germany for many years to come are Russia and the Argentine Republic. The uncertain crops of the former country will generally be in favor of American cereals, while from the latter country it costs three times as much to send a cargo of wheat to Europe as it does from any port in the United States.

Our trade with the German Empire covers a vast and varied field of products. The districts of Magdeburg, Stettin, and Danzig supply us with raw sugar; Munich and Würzburg with beer; the Palatinate, Bernkastel, and the Rhinegau with wines. We go to Frankfort and vicinity, to Mannheim, and to Barmen for colors and dyes of every description; to Berlin and Frankfort for chemicals and drugs; to Chemnitz for cotton hosiery and gloves; to Glauchau, Plauen, Annaberg, and Eibenstock for dress goods, embroideries, and trimmings. Rhenish Prussia sends us woolens, cottons, braids, laces, velvets, ribbons, silks, and silk mixed. Saxony exports to the United States textiles of all kinds, linens, musical instruments, leather gloves, furs, skins and bristles, etc. In fact, 25 per cent of the foreign trade of this Kingdom is done with the United States.

Some of Germany's chief exports to the United States for 1899 are as follows, in round numbers:

Textiles, various kinds	$18,000,000
Chemicals, colors, dyes, drugs, etc	13,000,000
Sugar, raw	12,000,000
Furs, hides, and skins	5,000,000
Leather gloves	3,000,000

During the fiscal year ended June 30, 1899, Germany purchased of us the following principal articles:

Articles.	Value.	Articles.	Value.
Agricultural machinery	$1,646,711	Meal	$4,032,654
Bicycles and parts	1,117,352	Indian corn	13,855,290
Manure	2,521,983	Wheat	7,666,210
Petroleum	6,542,815	Flour	2,007,404
Tobacco, raw	4,021,447	Pork (fresh, salted, etc.)	17,860,495
Lumber	2,272,474	Margarin	2,080,029
Cotton	47,346,679		

As the German Empire continues to offer increased markets to our cotton growers and farmers, it may be that in time the German colonies may become markets for the products of our manufacturers. We have already made a small beginning in some of them. In 1898, we sold to German Africa $2,319 worth of goods; in 1899, $27,573 worth to German Oceania; and in 1900, $29,202 worth to German China.

ERNEST L. HARRIS,

EIBENSTOCK, *September 20, 1900.* *Consular Agent.*

STRIKE AND LOCKOUT IN SOLINGEN.

The lockout of the Manufacturers' Association of Solingen against the pocketknife fitters of this place went into effect on the 4th of September last. This situation, if continued for any length of time, may create entirely new conditions in the cutlery industry here, and may result in the establishment of a comprehensive market value, a thing which has never existed in Solingen.

The manufacture of pocketknives is almost exclusively a home industry and is divided into many branches, chief of which are grinding, fitting, and finishing. Each of these branches has numerous masters, who, when necessary, employ independent journeymen and apprentices. During the dull seasons wages go down, and the masters often underbid each other, in order to secure work at even a minimum profit. Skilled workmen receive the preference, and, as a result, despite the low wages, a better quality of workmanship is often furnished. In the busy seasons, manufacturers fill their orders with difficulty, and the prices of labor go up rapidly in proportion to the demand. In some instances, the manufacturer has had to sacrifice nearly all his profit to get his work done.

The uncertainty of these conditions was keenly felt by all concerned and resulted in the establishment of protective unions by both the manufacturers and the workmen. The original intention of this step was to bring about harmony of interests, and a commis-

sion of an equal number from both sides was appointed to secure this result. The scheme, however, did not work as well as was expected, both sides showing little desire to live up to agreements; and, as the workmen were by far the better organized, the rulings of the commission were disregarded and the promise of better conditions was never fulfilled.

This was the situation up to a few months ago, when, against the advice of the commission, a strike was arbitrarily declared against a Solingen firm. Through the indifference of the Manufacturers' Association, the strike was won, and the firm was compelled to yield to all the demands of the workmen and, besides, to pay a fine of $2,500.

The outcome of this strike aroused the manufacturers to the danger threatening them, and when about a week ago the Union of Fitters, encouraged by their former success, arbitrarily declared a strike on two firms, a meeting was held and it was resolved to protect these firms in the most energetic manner. The Fitters' Union refused to declare the strike off, and consequently a general lockout was declared against them.

I have spoken of this strike as "arbitrary," because the Fitters' Union a few months before had signed an agreement regulating the prices to be paid for certain kinds of work, and now are attempting to enforce a higher wage scale.

The manufacturers declare there is nothing left for them to do but hold out to the end or close up their shops. The result will depend mainly on the financial resources of the Fitters' Union and on how far the other unions here and elsewhere will assist them financially. Should the assistance here be rendered too openly, the result may be a general lockout of all branches of cutlery.

What influence this strike may have on the export trade from Solingen to the United States is very hard to tell at this early stage, but, in the event of its continuance, exporting may practically cease.

I have been so often requested to give the market value of cutlery here that I quote from a letter written on this subject to a special agent of the United States Treasury last June:

> It is impossible to establish a true market value for cutlery in Solingen. The wages of the workingmen fluctuate, as well as the prices for raw materials. There are in this district hundreds of small shops for cutlery which produce only for export, and their owners act independently of each other. Again, each model which becomes fashionable is usually made in two or three and sometimes in four or five different qualities, and each kind is for the time being manufactured by a shop to the exclusion of all other articles. I have known instances where manufacturers of old standing failed to correctly estimate the value of other people's samples, the prices given being usually from 5 to 10 per cent too low or too high.
>
> E. Z. BRODOWSKI,
>
> SOLINGEN, *September 11, 1900.* *Consul.*

RAILWAY STRIKE AT CARDIFF.

The industries of this port and adjacent districts have been interrupted by a strike on the Taff Vale Railway, due to the dismissal of a signalman, dissatisfaction as to wages, and refusal to recognize labor leaders. The managers yielded the first point, on condition that the strikers should promptly return to work. As to wages, the railway men argue that they have not reaped the fruits of a prosperity unprecedented in the history of British labor, and that, while wages in other lines of industry have been advanced, theirs has been at a standstill. Many censure the directors for refusing to negotiate with labor representatives, as the strike might thus have been avoided.

There is much sympathy felt for the strikers among allied trades.

Mr. Alfred Thomas, M. P., in a recent speech, reviewed legislation on the subject of strikes. His remarks are summarized as follows:

The Government in 1896 passed a measure called the conciliation act, from which great things were expected. It was intended to use the good offices of the Board of Trade to bring about a mutual understanding between employers and employees in industrial disputes. The act failed because the whole arrangement was permissive, and not accompanied by adequate power to make it effective. No legislation of a permissive character can satisfactorily solve the difficulties that inevitably arise in trade disputes; and if it is wished to bring those differences to an end, it is necessary that some legislation should be enacted that would give all the force of law to any arrangement arrived at by properly constituted authorities. If the greater problems of nations can be settled by arbitration, why not the lesser problems of industrial disputes? In two of our colonies, viz, Victoria and New Zealand, the legislatures have solved the difficulty, and New South Wales is following in their trail. I venture to believe that all disputes between capital and labor can be satisfactorily settled without resorting to strikes and lockouts, which prove so injurious to the interests of the country. This could be done by establishing an industrial appeal court, to which all cases, at the desire of either party, could be submitted; and the findings of that court should have all the force of the awards of the high courts of the realm. The Government should appoint a judge to preside in this court, whose term of office should extend to three years. With him should be associated two other arbitrators, one chosen and appointed by each side in the dispute. Among the advantages to be claimed for such a tribunal would be chiefly that in case of a dispute the particular industry from which it arose would not be brought to a standstill, but would proceed in its usual course, and whatever differences would occur by the award given would be adjusted, thereby obviating the serious dislocation in trade and commerce which now so frequently arises. The employer could then with safety make his contracts extending to the time that that award would last, and the employee would be assured that for such a time his wages would be guaranteed.

The British Board of Trade, realizing that the stoppage of Welsh steam-coal supplies meant the handicapping of ships of war, has sent a representative to Cardiff to try to effect a settlement.

Just as I was about to close this report, the news came that the strike had been settled on the following terms:

(1) All men are to be reinstated within one month.

(2) The service is to be considered as continuous, so that everyone entitled to a pension, and so forth, will be assured of these advantages as though there had been no strike.

(3) The withdrawal of all summonses and other legal actions against the men generally.

(4) That a conciliation board shall be considered by the four or five local railway companies, and the formation of the same if possible before October 31 next.

(5) That the demands submitted by the men shall be considered by this board; but if the board is not settled by October 31, these demands shall be considered by the directors.

The terms are not altogether satisfactory to the men, but were accepted, upon the advice of their leaders, as the best that could be secured under the circumstances, as many of the strikers had not given legal notices and had thus committed a breach of contract.

The best feature of the settlement is the proposed establishment of a "board of conciliation," consisting of members of the Taff Vale and other railway companies and other representatives, to discuss and decide matters in dispute.

DANIEL T. PHILLIPS,
Consul.

CARDIFF, *August 30, 1900.*

MANUFACTURE OF PATENT FUEL IN WALES.

In my report on "Coal briquettes in Wales," published in March, 1899,* I gave an elaborate statement describing the various processes for manufacturing patent fuel, or coal briquettes, from soft coal. I will now describe the agglomite process of manufacturing patent fuel from both the anthracite and bituminous mineral, specimens of which may be seen in my office.

The agglomite process of manufacturing patent fuel from anthracite and bituminous minerals is entirely different from any other. By this method, the coal and agglomerants are chemically mixed while under the influence of heat and pressure, in a sealed vessel, by which a new fuel compound is produced.

The process is as follows:

The coal and agglomerants are mixed and ground in a dry state. If tar or pitch or other liquid substances are used, they may be subsequently added; then the prepared material is put into a hopper attached to the end of a horizontal tube. The opposite end of this tube is connected with the briquette press. A worm is kept con-

*ADVANCE SHEETS No. 327 (January 18, 1899); CONSULAR REPORTS No. 222 (March, 1899).

stantly revolving in the tube, conveying the material through the tube and feeding it into the pressing-ram chamber. The tube passes through a small furnace, which enables the material to become heated to a temperature of 500° or 600° F. The gases evolved can not escape; hence the pressure produced within the tube is shown on an attached gauge to be about 10 pounds per square inch. Practically, the tube is an automatically sealed vessel, for the closely packed mass of coal materials fed from the hopper into one end of the tube by the revolving worm and the hot plastic mass fed out by the same worm into the press chamber at the other end of the tube is so closely blocked up by the passages as to overcome the internal pressure of 10 pounds per square inch created by the hot gases. These gases, under pressure, permeate the hot plastic mass which is being turned over and over as it slowly travels along the sealed tube. Tar, as well as pitch, can be used as an agglomerant. Indeed the use of tar, which is considered cheaper than pitch, affords opportunities for many possible new chemical combinations in the manufacture of agglomite. There is no question that a form of tar distillation goes on in the tube with the degree of heat employed; and that with such distillation carried on under pressure numerous well-known substances are broken up, rearranged, and are intimately incorporated with the particles of coal in a way which is not possible under any other fuel-manufacturing system.

Of the proximate composition of coal, comparatively little is known. When coal is subjected to great heat, it is known that gaseous hydrocarbons are produced, and then chemical reactions take place; but the composition of the gaseous hydrocarbons varies according to the temperature to which the coal is subjected.

The practical value of a fuel largely depends on its ability to produce gases, which, properly burnt, yield considerable heat. Agglomite fuel possesses this feature, due, first, to the dissociation of gases under the combined influence of heat and pressure; secondly, to the ultimate chemical rearrangement of gases and solids, while being gradually condensed and cooled previous to passing into the pressure chamber of the briquette press. The process, mechanically and commercially, is full of chemical problems and secrets, for which reason it is advisable that our American merchants who may be inclined to go into the business should familiarize themselves therewith before embarking on the enterprise of manufacturing anthracite fuel.

Millions of tons of anthracite-coal dust now thrown away can be successfully utilized in this manner. It will not take long for our quick-sighted American citizens to master details. It will be to their advantage to know that a much smaller percentage of

agglomerating material than is usually employed will suffice, without impairing the quality or appearance of the fuel.

Tar can be employed with advantage, both for heating power and from an economical point of view. With the object of ascertaining the quality and action of agglomite fuel, made from an inferior small coal, Mr. James Stevens, M. E., inspected the experimental plant at work. He makes the following statement:

The briquette press is something like the old form of a Bourriez press, but has a short horizontal mold only 8 inches long. It is capable of producing about 3 cwts. per hour and is driven by a small engine exerting 8 actual horsepower. The pressing ram is 3-inch diameter, making twenty-three strokes per minute and exerting a pressure of 680 pounds per square inch on the fuel. The material is fed by the worm of the heating tube into a closed chamber between the pressing ram and the mold. The mold consists of two semicircular plates 3 inches internal diameter by 8 inches long, pressed together by two levers and slightly tighter at the outer end, so that, while the pressing ram keeps pressing fresh charges into the taper mold at a pressure of 680 pounds per square inch, the material is gradually being more and more compressed, resulting in a very compact fuel, with bright polished sides. While the material is passing through the mold—occupying a period of some twenty-eight seconds—the levers subject it to a continual pressure of 2,376 pounds on the circumferential area of the fuel, or to an average pressure of 31 pounds per square inch for twenty-eight seconds.

The agglomite made in the above plant consisted of 88 per cent of small coal produced from the 4-foot Glyngwernen seam, having a value of 4s. to 4s. 6d. (97 cents to $1.19) per ton delivered in Swansea, 8 per cent of pitch and 4 per cent of tar. The proportion of agglomerants is high, and could with advantage be greatly reduced by using a better quality of coal. The coal contained 9.52 per cent of ash, but repeated laboratory tests give as much as 12.5 per cent. The volatile matter was said to be from 13 to 14 per cent.

The trial was made in a Galloway boiler ten or twelve years old, but in good and clean condition, and connected to a chimney which exerted a natural draft of 0.45 inch. Cold water was filled into the boiler till it stood at the working water level of the boiler. A fire was then made and the water raised to boiling point. The greater portion of these fires was then withdrawn and a trial commenced, the water being maintained at one level by allowing the contents of a cask to run into the boiler when required. These casks were fixed above the boiler and fitted with supply and delivery pipes and valves, so that the cask could not be emptied till it was exactly full. The water ran direct from the casks into the boiler through the manhole. In order to be quite sure that none of the water could be lost by being carried away by priming, the manhole cover was kept off and the steam allowed to escape direct into the atmosphere.

The casks employed for the above purpose were carefully weighed when empty and when full, and the amount of water fed into the boiler is therefore absolutely correct.

The fuel ignited very readily and burned with a white flame of great heat with much briskness. The briquettes slowly opened out on the grates and presented an appearance, when partly burnt, like lumps of coral. There was no tendency to melt, and only 1.19 per cent fell through the grate bars in the shape of ash. Owing to the excess of dirt in the coal, the clinker was 7.19 per cent; this, of course, can easily be avoided in a better class fuel. The boiler was fired twenty times in six hours, but no further attention on the part of the stoker was necessary.

The smoke produced was very satisfactory, the amount visible after each firing being faint and lasting about one minute.

A block of agglomite was immersed in water with the following satisfactory results:

	Ounces.
Weight of block	31. 75
Weight of block after 1 hour's immersion	31. 75
Weight of block after 20 hours' immersion	31. 95
Weight of block after 26 hours' immersion	31. 95
Weight of block after 164 hours' immersion	32. 5
Weight of block after 242 hours' immersion	32. 7

At the end of 242 hours, the block was found to be as hard as when first immersed.

The weight of a cubic foot calculated from these blocks is 77.89 pounds, equivalent to a specific gravity of 1.25. This is satisfactory when it is considered that the specific gravity of patent fuel varies from 1.18 to 1.22.

The average of a series of tests with Thompson's calorimeter proved that the calorific value of the fuel was 11.08 per cent higher than that of the coal from which it was made. This instrument gave an average theoretical evaporation of 14.9 pounds of water per pound of fuel from and at 212° F.

A fair average evaporation of Welsh steam fuel is 9 pounds of water per pound of fuel from and at 212° F. On reference to the trial table which I submit, it will be seen that 1 pound of agglomite made from inferior small coal evaporated over 10 pounds of water from and at 212° F.

Mr. Stevens declares that in his opinion the "agglomite" process of making patent fuel, when carried out in suitable machinery, is superior to any of the processes known to him.

Stevens's table showing results of steam trial.

Duration of trial, 6 hours.
Temperature of atmosphere, 52° F.
Type of boiler used for trial, Galloway.
Boiler dimensions, 26 feet in length by 6 feet 6 inches in diameter.
Diameter of furnaces (2), 2 feet 7½ inches.
Number of Galloway cone tubes, 27.
Dimensions of grates, 7 feet by 2 feet 7½ inches.
Total grate area, 36.75 square feet.
Total heating surface, 766 square feet.
Total amount of fuel consumed, 2,385 pounds.
Total amount of fuel consumed per hour, 397.5 pounds.
Total amount of refuse fallen through grates, 28.5 pounds (1.19 per cent).
Total amount of clinker, 171.5 pounds.
Total percentage of refuse in the fuel, 8.39.
Net amount of combustible, 2,185 pounds.
Average temperature of feed water, 48° F.
Actual amount of water evaporated, 20,559 pounds.

Pounds of water evaporated per pound of fuel, 8.62.
Pounds of water evaporated per pound of combustible, 9.41.
Pounds of water evaporated per pound of fuel from and at 212° F., 10.085.
Pounds of water evaporated per pound of combustible from and at 212° F., 11.009.
Pounds of fuel burnt per square foot of grate per hour, 10.82.
Number of times each furnace was fired, 20.
Draft at foot of chimney in inches of water, 0.45.

There is no reason why a pound of bituminous or anthracite coal dust should be wasted, nor why the patent-fuel industry should not succeed in the United States. All that is wanted is a little capital, a little common sense, a little courage, and perseverance.

DANIEL T. PHILLIPS,
CARDIFF, *August 27, 1900.* *Consul.*

COMMERCIAL UNION OF BELGIUM.

On June 27, 1891, a number of Belgian commercial travelers founded a mutual-benefit association. This institution at first had a limited professional character, which has now completely disappeared, and to-day it unites without distinction merchants, contractors, foremen, travelers, and clerks—in fact, all persons connected with commercial life. It is a vast association of tradesmen, divided into professional sections, maintaining in its work the original principles governing its creation. There are throughout Belgium five thousand members, eight hundred of whom belong to Brussels. Committees are located in the important manufacturing and trading centers of Alost, Antwerp, Binche, Braine-le-Comte, Bruges, Courtrai, Dinant, Ghent, Liege, Mons, Marchienne, Namur, Renaix, Tournai, Verviers, and Ypres. The association interests itself in all questions concerning the various industries represented. It also exerts its best efforts toward inducing small tradesmen to join the movement.

Professional instruction, consisting of courses in elementary and superior instruction in English, German, bookkeeping, stenography, and commercial law, is given free to members and their sons under 18 years of age. The Government contributes funds for meeting this expense, and the instruction is terminated by rigid examination under the superintendence of professors connected with the commercial high school annex of the Institute St. Louis, at Brussels. Diplomas are awarded, and already they have been of great assistance in securing honorable positions for the holders.

In case of accident by rail or boat or loss of position, the association extends aid. It also obtains reductions in prices from doctors, druggists, dentists, bath houses, newspapers, and tram lines. One section occupies itself in securing positions for members seeking

employment; another, in assisting members who have met with reverses of fortune. A society has been formed for the purpose of assisting members in the acquisition and construction of houses. The Caisse d'Epargue (Government Savings Bank) has promised to advance important sums under advantageous conditions for this purpose.

By paying a monthly sum of 1.60 francs (30.8 cents), members are assured of an almost gratuitous medical service, as well as a monthly sum during illness or incapacity to work, limited to 75 francs ($14.475). Members have the right to select their medical advisers. The association has also made an arrangement with the Government Savings Bank which permits members the privilege of participation in subsidies accorded by the Government. Pensions and life insurance are among the other advantages offered.

GEO. W. ROOSEVELT,
Consul.

BRUSSELS, *August 20, 1900.*

MONEY AND COINAGE IN SPAIN.

The present coinage of Spain is under the reform law of 1868, which took effect the 31st of December, 1870, with its several amendments. The law of 1868 created the monetary unit of 1 peseta (19.3 cents) in place of the old unit of a real (about 5 cents), and made weights and fineness of gold and silver to conform with those of the Latin Union.

In 1876, the 20-peseta gold piece was discontinued, and a piece of 25 pesetas decreed in its stead.

In 1881 the branch mint, in Barcelona—where the coinage of bronze was done—was suspended, and since that time all coinage has been done in the Casa de Moneda (the mint) in Madrid.

The operations of the mint are not available for detailed report. It is, however, a fact that it is working constantly, coining silver to its capacity; and, accordingly, in the past ten or more years, not only have practically all of the old coins been reminted, but a large sum of money has been coined from silver bullion, from which, it is currently reported, the profits to the Government amount to a large sum annually.

By chance, I obtained the loan of a "Memoria," in pamphlet form, issued in 1895, containing an official compilation of coinage from 1869 to 1893, inclusive.

During that period, the coinage of the 20-peseta gold piece was effected in only three years—1889, 1890, and 1892—and the total number of pieces coined was 5,650,083. In the same period there

were only 123,869 10-peseta gold pieces coined, and those in the two years of 1878 and 1879.

Of silver, during the same period, there were 140,584,928 5-peseta pieces coined, which coinage was carried on in each year, except 1869 and 1881. Of 2-peseta pieces, there were 69,517,913 pieces coined in the years 1871, 1873, 1874, 1875, 1879, 1881, 1882, 1883, 1885, 1889, 1891, and 1892. Of the 1-peseta pieces, there were 47,839,924 pieces coined in the years 1869, 1870, 1871, 1873, 1876, 1881, 1882, 1883, 1884, 1885, 1886, 1889, 1891, and 1893. Of the half-peseta pieces, there were 15,386,434 pieces coined in the years 1870, 1881, 1885, 1889, and 1892. In 1871, an exceptional coin of the value of one-fifth of 1 peseta was coined to the number of 5,091 pieces only.

Since 1893, as before intimated, the coinage of silver has been constant and in large amounts, so much so that the money in circulation is mostly of new coinage, and a goodly portion even bears date of 1900, but no official figures are obtainable at this time.

The coinage presses are stated to be of the Thonnelier invention, of which there are six large ones and eight medium ones, and one of a German type, name not given; also four presses for coinage of small pieces. With these the capacity of the mint is 100,000 large coins, 200,000 medium coins, and 150,000 small coins.

The durability of the dies used in coinage may be of interest, and is stated as follows: In the coinage of the 20-peseta gold pieces the average is 15,188 to a pair of dies; in the 5-peseta silver pieces, 8,545 to a pair of dies; in the 2-peseta pieces, 9,032 to a pair of dies; in the 1-peseta pieces, 8,929 to a pair of dies; and in the half-peseta pieces, 7,242 to a pair of dies.

The coinage of the 25-peseta pieces was carried on only in the years 1877 to 1886, both inclusive, but to the extent of 29,984,073 pieces.

The weight of the 25-peseta gold pieces coined averaged 1.0005, and the fineness 899.8; the 10-peseta gold pieces averaged 0.9996 and 899.99, respectively.

The weight and fineness of the silver coinage averaged, respectively, as follows, viz: Five-peseta pieces, 0.9993 and 0.900; 2-peseta pieces, 0.9993 and 0.8349; 1-peseta pieces, 1.000 and 0.835; and the half-peseta pieces, 0.9988 and 0.8351.

The amount of copper or bronze coins in circulation can only be estimated at about 70,000,000 pesetas, nominal value, or about 3 to 4 pesetas per capita of the population.

The money in circulation consists of Bank of Spain notes, silver, and copper, gold being 27 to 28 per cent premium.

DWIGHT T. REED,
Vice-Consul.

MADRID, *August 22, 1900.*

ELECTRICAL GOODS IN TURKEY.

The chargé at Constantinople, Mr. Griscom, writes under date of September 1, 1900, that about two months ago a United States firm made a shipment of electrical appliances to Constantinople. Upon arrival there, the merchandise was seized in the custom-house and refused admittance to the Empire, the introduction of electrical appliances of any description being prohibited. Mr. Griscom caused some samples of the goods—small reading lamps, toys with storage batteries attached, etc.—to be taken to the palace and brought to the attention of the Sultan. The latter was much attracted by the novelty of the articles and bought the whole consignment for his personal use. He also issued an irade authorizing the introduction of similar articles into the country.

It is to be hoped, adds Mr. Griscom, that a permanent trade may be established in this class of goods, though it should be understood that the irade does not refer to electrical appliances of all kinds. The general interdiction against dynamos, electrical plants, telephones, etc., still exists.

DEMAND FOR TELEGRAPHIC APPLIANCES IN TURKEY.

Vice-Consul-General Albert sends from Constantinople, September 5, 1900, a letter from Consul Norton, of Harput, in reference to the bids for supplies to be presented next month to the director of the Turkish postal and telegraphic service. The material is required in the construction of a new telegraph line.

One of the leading firms of Constantinople, says Mr. Norton, is desirous of securing quotations from a first-class American house to use in this competition. The telegraphic supplies which it has hitherto furnished the Ottoman authorities have been of English and German manufacture. The firm feels that the time is ripe for American material of the character in question to enter the Turkish market, with a fair prospect of success. Quotations should be received by October 10, though a delay of a week or two will perhaps not prevent consideration, as the date for final reception of bids is frequently postponed a fortnight or more. The house requesting these figures is reliable, and there will be no delay in payment.

The articles* required are:

Galvanized iron wire of 5 millimeters (0.177 inch)	kilograms...	†532, 800
Galvanized iron wire of 4 millimeters (0.156 inch)	do.....	‡133, 500
Large insulators, with iron accessories	pieces...	40, 725
Small insulators, with iron accessories	do.....	20, 000
Large insulators, with iron accessories	do.....	2, 225
Do	do.....	7, 000
Posts, made after the Siemens pattern	number...	1, 000
Do	do.....	200

Offers are to be sent to M. Edouard Zanni, Haratch Han, Stamboul, Constantinople (open mail, via London). Correspondence may be in English, but should be preferably in French. Prices should be expressed in francs (19.3 cents), and should be c. i. f. Constantinople, *i. e.*, packing, freight, insurance, and all charges (except customs dues) paid to Constantinople. Payment will be made by draft on London or Paris, immediately on receipt of goods. Quotations should be received at Constantinople by October 10, or as soon thereafter as possible. In case of acceptance, a formal contract will be made at the United States consulate-general. The material will be furnished in several lots. Three months' notification will be given of the time for receiving each separate lot.

DEMAND FOR RAILWAY MATERIAL IN SYRIA.

Consul-General Dickinson, of Constantinople, writes from Binghamton, N. Y., October 15, 1900:

The delay in obtaining the British concession for the proposed railway line from the Syrian coast at Haifa to the city of Damascus seems now to be at an end. It was supposed that a valid concession had been granted, and surveying and other preliminary work was going on, when it was claimed that one of the official signatures to a document relating to the concession was in dispute. The British embassy at Constantinople has been at work upon the matter, and it is now believed that the question is satisfactorily settled.

The proposed line is to be of single track and is to be about 120 miles long. The most profitable business in sight will be the carrying of wheat from the fertile Hauran district to the coast. The road will also be a competitor for the through traffic which now goes over the narrow-gauge road from Damascus to Beirut, and it

* Drawings and full descriptions (in French) of these articles are filed for reference in the Bureau of Foreign Commerce, where they can be examined by interested parties.

† 1,174,611 pounds.

‡ 294,314 pounds.

will have a distinct advantage over the latter on account of its easier grades.

Contracts for the supply of material have not yet been let, and proposals from American manufacturers are desired. Communications should be addressed to A. J. Hill, Thames Iron Works, London.

AMERICAN AND RUSSIAN PETROLEUM IN THE WORLD'S MARKETS.

It is reported on good authority that Russian petroleum is gaining ground in Germany and England, while in China it has so far not been able to successfully compete with the American product. The imports of Germany were, in the first three months of 1900, 42,795 tons (15 per cent) of Russian and 243,963 tons (85 per cent) of American petroleum. The total imports for the year 1899 were 110,187 tons (11.7 per cent) Russian and 828,913 tons (88.3 per cent) American. The total imports for 1898 were 61,339 tons (6.5 per cent) Russian and 872,942 tons (93.4 per cent) American.

In Great Britain, only a few years ago, American petroleum had almost a monopoly. From January 1 to August 1, 1900, the imports were 3,020,000 gallons of American and 2,840,000 gallons of Russian petroleum. The reason for this is said to be the fact that large Russian oil fields have been acquired by Englishmen.

China imported in the first six months of 1900, 3,500,000 cases of Russian petroleum, against 5,410,000 cases in the same period of 1899, and 6,100,000 cases of American petroleum during the first six months of 1900, against 4,520,000 cases in the same period of 1899.

RICHARD GUENTHER,
Consul-General.

FRANKFORT, *August 29, 1900.*

RUSSIAN EXCISE DUTIES.

Consul-General Holloway sends from St. Petersburg, August 28, 1900, statement of the recent changes in the Russian tariff printed in ADVANCE SHEETS No. 819 (August 28, 1900). An additional excise on spirits and tobacco, he says, will also be collected from the 29th of August, 1900, as follows:

(1) On wine and spirits, 11 kopecks (5.6 cents) per degree from metallic alcohol measure, or 11 rubles ($5.66) per vedro (2.707 gallons) of pure spirits.

(2) Ten kopecks (5.1 cents) per degree to preserve wine and spirits from damage caused by flowing or dryness.

(3) Eleven kopecks (5.6 cents) per degree for the distillation of spirits.

(4) On each brewery tub, 40 kopecks (20.6 cents) per vedro (2.707 gallons) of beer.

(5) On Russian brandy (votka), used to prepare spirits, 2 rubles ($1.03) per vedro, and the price of the bandrol (excise receipt) will be doubled.

(6) On tobacco, 4 rubles ($2.06) per pood (36.112 pounds), or 10 kopecks (5.1 cents) per pound; on the inferior sort of tobacco, 9 kopecks (4.6 cents) per pound; and for the bandrol, 2¼ kopecks (1.03 cents) per one-fourth of a pound, 1⅛ kopecks (0.6 cent) per one-eighth of a pound.

(7) On cigars, second and third class and bandrol duty (article 806, on excise):

Description.	Everywhere, excepting Siberia and beyond the Caucasus.		Beyond the Caucasus.		In West Siberia.		In East Siberia.	
Smoking tobacco:								
Second class—	*Kopecks.*	*Cents.*	*Kopecks.*	*Cents.*	*Kopecks.*	*Cents.*	*Kopecks.*	*Cents.*
½ pound	80	41	80	41	85	43.7	90	46.3
¼ pound	40	20.6	40	20.6	43	22.1	45	22.5
⅛ pound	20	10.3	20	10.3	22	11.3	23	11.8
Third class—								
¼ pound	14	7.2	14	7.2	17	8.7	19	9.7
⅛ pound	7	3.6	7	3.6	9	4.6	10	5.1
Cigars, second class—								
25 cigars	54	27.8	54	27.8	58	29.8	62	31.9
10 cigars	22	11.3	22	11.3	24	12.3	25	12.8
5 cigars	11	5.6	11	5.6	12	6.1	13	6.6
2 cigars	5	2.5	5	2.5	6	3.09	7	3.6
Cigars, third class—								
25 cigars	32	16.4	32	16.4	36	18.5	40	20.6
10 cigars	13	6.6	13	6.6	15	7.7	16	8.2
5 cigars	7	3.6	7	3.6	8	4.1	9	4.6
2 cigars	4	2.06	4	2.06	5	2.5	6	3.09
Inferior sort, for smoking and snuff—								
¼ pound	3	4.1	10	5.1	10	5.1	11	5.6
⅛ pound	4	2.06	5	2.5	5	2.5	6	3.09

PROFITS OF RUSSIAN SPINNERS.

Consul Marshal Halstead, of Birmingham, under date of September 26, 1900, sends the following extract from a recent number of Sell's Commercial Intelligence:

In his interesting series of letters entitled "Round Russia," now appearing in the Daily Chronicle, Mr. Henry Norman speaks of the wonderful development of the cotton industry. In 1886, there were over two million spindles in the Moscow district and as many more in other places. From 1880 to 1889, the output of the cotton-manufacturing industry rose from 240,000,000 rubles to 487,000,000 rubles.

During the ten years that have since elapsed, vast progress has been made, but serious statistics can not be obtained.

Lancashire will learn with subdued interest, however, of dividends varying from 20 per cent as an ordinary return to as much as 80 per cent.

National jealousy and the fact that Russia has largely learned what she employed them to find out has led to the disappearance of the English foremen who a few years ago were common in Russian mills.

One other matter in connection with cotton in Russia calls for attention. Most of the raw material comes from America and Egypt. But in Turkestan Russia has come into possession of a cotton-growing country of great possibilities. Last year a Moscow merchant told Mr. Norman 350,000 bales came from there, and this, it must be remembered, is favored by escaping the heavy duty which foreign cotton has to pay. An official publication contains this statement: "In the near future, probably the greater part of the Russian cotton industry will be supplied with the native raw material." But as all the cotton of Turkestan is dependent upon irrigation and water is scarce there, the Moscow spinners do not yet share this optimistic hope.

FOREIGN MINING CAPITAL IN RUSSIA.

B. F. Brandt, an economic expert of Russia, who for some years past, at the direction of the Russian Ministry of Finance, has carried on scientific investigations of that Empire's natural resources, has lately published a book treating of the metallurgic and coal industries of Russia, which at present are mainly situated in the south. He says:

Previous to 1885, when the first mining enterprise conducted by foreigners was established, all Russian attempts to exploit the iron-ore deposits had proved failures.

Since 1885, many foreign mining companies in rapid succession have begun operations on a very extensive scale. At present, seventeen large foundries are successfully at work in southern Russia, only four of which are owned by Russians. In the same section twenty extensive establishments are working up iron; these have been organized and are owned by foreigners. Owing to this influx of outside capital and business energy, the iron-foundry industry has increased fivefold during the last decade.

Quite different is the situation in the Ural district, where there is hardly any foreign capital engaged in mining operations, though this region has immense deposits of the best quality metals and is rich in surface coal.

A Government commission sent to that region some time ago to study the cause of this inertness attributes it to the lack of suitable transportation methods between the iron and coal districts. The commission recommends that the Government give up its mining system to private companies, which are more apt to conduct mining according to modern and improved systems.

The above statement has already induced foreign promoters to erect a number of new blasting furnaces and foundries in the Ural district, and it is estimated that next year's production of foundry iron will reach 50,000,000 poods (928,000 tons of 2,000 pounds each).

Belgium almost monopolizes the mining enterprises which foreigners own and operate in Russia. Belgian capital, amounting to

over 300,000,000 francs ($57,900,000), is invested in forty-three mining and metallurgical companies operating in Russia.

I have often pointed to Russia as the most promising and profitable foreign field for American industrial undertakings.

SIMON W. HANAUER,
Vice-Consul-General.

FRANKFORT, *August 15, 1900.*

CERAMIC EXHIBITION IN ST. PETERSBURG.

The Department has received a note from the Russian embassy, dated September 21–October 4, 1900, announcing that an international artistic and industrial exposition of ceramic works will be held in St. Petersburg in December, 1900, under the management of the Society for the Relief of Poor and Sick Children. The participation of those interested is requested. A description of the proposed exposition and the rules governing exhibits follow:

ARTISTIC AND INDUSTRIAL INTERNATIONAL EXPOSITION OF CERAMICS AT ST. PETERSBURG.

The committee of the Aid Society for Poor and Sick Children, under the patronage of her imperial highness the Grand Duchess Elizabeth Mavrikiewa, organizes at St. Petersburg, in the month of December, 1900, an artistic and industrial international exposition of ceramic works. The contemplated exposition has a double aim: to show the public the progress made by Russia and other countries in artistic and industrial ceramics, and also to aid the society by placing at its disposition the net benefits of the enterprise. Only ceramic works (porcelain, faïence, opaque, majolica, clay, glass, and crystal) of artistic excellence will be admitted to the exposition, as well as those which, lacking the preceding condition, are yet distinguished by the originality of their design, form, or mode of manufacture.

The exposition will have a special section for foreign goods, and will remain open about six weeks. Premiums of different kinds will be awarded to the best works by a committee of Russian and foreign appraisers.

Articles exhibited can be sold, 10 per cent being deducted from the price for the benefit of the society. Exhibitors can also receive orders. Objects sold of which the exhibitors possess several specimens will be delivered without delay to the purchasers.

The committee of the exposition hopes that foreign manufacturers will not refuse to kindly accept the invitation, in view of the indisputable advantages this enterprise presents. It is evident that the proposed exposition will contribute to the development of the local and international commerce of ceramic works, as well as to the advancement of this industry, which has made such progress of late years.

Industrial and artistic schools can study the samples exhibited, while the public will become familiar with artistic works and with the tastes of foreign people. Finally, through the sympathy which we hope to excite throughout the world, the precarious condition of the sick and poor children whom we are called upon to assist in the name of Christian charity will be greatly improved.

Rules for exhibitors.

(1) The general arrangements for the organization of the exposition are made by a committee under the presidency of the Assistant Minister of Finance, Mr. W. Kowalevsky.

(2) The direct administration of the exposition and the arrangement of the details will be directed by the commissioner-general and his deputy.

(3) The exposition will comprise the following sections: (*a*) Works and manufactories comprising the ceramic productions of Russia; (*b*) development and the present condition of ceramics in Russian industrial schools; (*c*) small manufactories; (*d*) foreign manufactures.

(4) The exposition will open in December, 1900, and will last six weeks.

(5) Only artistic ceramic objects (porcelain, faïence, opaque, majolica, clay, glass, and crystal) distinguished by originality of design, form, or manner of manufacture will be admitted to the exposition.

(6) For information concerning the exposition, address the chancellor's office (Aptekarsky piréoulok 4) every day from 2 to 5, except Sundays and holidays.

(7) Parties desiring to take part in the exposition must notify the chancellor before the 15–28 of September, 1900.*

(8) The price of sites is fixed at 10 rubles ($5.15) for 5.44 square feet upon the floor and 5 rubles ($2.57) per 5.44 square feet against the wall. Payment must be made before sending the articles.

(9) Money sent for sites for articles not sent to the exposition will not be refunded.

(10) Articles may be exhibited in glass cases belonging to the exhibitors; those arranged for exhibition by the committee must pay a special price agreed upon beforehand.

(11) Articles must be sent at the expense of the exhibitors; no goods will be admitted unless prepaid.

(12) Articles for the exposition should be addressed to the St. Petersburg Exposition of Ceramics and accompanied by invoices furnished to exhibitors by the committee of the exposition.

(13) The unpacking, setting up, and repacking of objects exposed are at the expense of exhibitors; the cases, packing baskets, etc., will be stored free of charge.

(14) Exhibitors desiring to regain possession of objects not sold must inform the committee before the close of the exposition; otherwise, these objects will be considered as gifts for the benefit of the Society of Poor and Sick Children. All complaints on this point would in that case be null and void.

(15) Foreign goods will be exempt from customs duties, provided they are returned within two months after the closing of the exposition; foreign articles sold at the exposition must pay entrance duties according to the tariff.

(16) Articles exhibited will be returned from the exposition free of charge by Russian railways.

(17) Articles exhibited may be sold, but 10 per cent of the sale will be deducted for the benefit of the Society for Poor and Sick Children. Articles sold can be delivered immediately to the purchaser on condition of being replaced by the exhibitor.

(18) The exhibitor, having paid all the charges, will receive a personal entrance ticket free during the exposition.

(19) To avoid misunderstandings, packing boxes must be provided with covers fastened by screws. The names and surnames of exhibitors must be written both on the inside and outside of the case. The nomenclature of objects contained in the packages must also be given.

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* Extended to October 15–28.

(20) The report will be made conformably to a special instruction of the committee.

(21) Exhibitors who have received superior prizes at recent expositions will be declared out of the competition.

(22) The committee of the jury will bestow premiums of different classes to exhibitors whose articles shall be considered worthy.

(23) All misunderstandings in regard to the exposition will be decided by the commissioner-general or his substitute.

Under date of October 2–15, a supplementary note from the embassy says that the term for application for intending exhibitors has been extended to October 15–28. The committee would like to secure the participation of the three following firms: Grueby Faïence Company, Boston; Kookwood Pottery Company, Cincinnati; Louis C. Tiffany Allied Arts Company, New York.

FRUIT MARKET IN SIBERIA.*

Siberians, as a rule, are not great consumers of lemons, nor do they use them in tea as much as may be the custom in central Russia, cream having come into general use by the importation of condensed milk from the United States, France, and Switzerland.

Most of the lemons, raisins, figs, honey, olives, olive oil, oranges, and nuts imported come from Europe via Odessa. All of these are brought by steamer, usually carefully packed, and at a cheaper rate than could be given by Pacific coast merchants.

California products have already been introduced here by several of the larger firms, especially the canned fruits, which are in great favor. There seems to be a preference for our goods of this character; but high freights, delays in receipt of goods, and bad packing have done much to injure American trade.

Several persons have been here within the last two years looking for openings for California fruit; but after examining the field, they seem not to have considered the outlook favorable.

Some lemons and raisins come from the United States, figs and olives from Italy and France, and a little honey from Russia, while wines come from Russia and oranges and nuts from China (Chefoo) and Japan. No fruit from China, Japan, or Manchuria compares with that cultivated in the United States, and if it were possible to put our leading fruits into this market, I believe it would prove to be not only a blessing to the people, but a commercial success. But all depends on low rates of freight, quick transit, and proper packing.

* This report was made in answer to inquiries by a resident of California, to whom ADVANCE SHEETS have been sent.

The principal trade markets of Siberia are Vladivostock, the southern terminus of the Ussuri Railway line, 475 miles from Habarofsk, the northern terminus, and the capital of the Amur province, situated at the junction of the Amur and Sungari rivers. Nikolaefsk, the first principal town in eastern Siberia, is reached from Vladivostock either by sea or by the Amur River. Between Habarofsk and Vladivostock is the important town of Nikolksk-Ussuri, the eastern end of the new Siberian line. Blagovestchensk, the most important inland town of eastern Siberia, is about half way between Habarofsk and Stretensk, a good 1,000 miles from Habarofsk. There is a large business community here, and American goods are widely used. From Vladivostock to Nikolaefsk is five to ten days' sail; from Vladivostock to Nikolksk-Ussuri, about four hours by rail; from Vladivostock to Habarofsk, some thirty hours; from Habarofsk, by steamer, to Blagovestchensk, from five to ten days, according to the condition of the river. Transportation facilities are good; there are two lines of steamers in times of peace.

The communication between Port Arthur and Vladivostock will not be delayed, even under the present circumstances, later than the spring of 1902.

RICHARD T. GREENER,
Commercial Agent.

VLADIVOSTOCK, *August 1, 1900.*

COMMERCE AND INDUSTRY OF JAPAN.

Business men and the students of commercial problems in this section of France are devoting a great deal of attention at present to the commerce and industry of Japan. The subject is of very special interest in this great center of silk manufacture, because Japan, next to China, is the greatest producer of the raw material woven into fabrics upon the Lyons looms. In Lyons and in the ten Departments where the people in some way contribute to the manufacture of Lyons silks, there are from 400,000 to 500,000 persons employed in the industry, and, as 56 per cent of the raw material upon which they work comes from China and Japan, a careful study is given here to everything industrially or commercially related to either of those countries.

It is pointed out, in connection with this subject, as something not hitherto noted, that among exports from Japan an important increase has taken place in the manufactured articles which are shipped to China, Korea, and even to Australia, while the country is becoming more than ever the furnisher of raw material to the mills and workshops of Europe.

Japanese merchants exchange their piece goods for gold dust, rice, hides, and other commodities in Korea, seldom receiving money. Japanese yarn is sold everywhere in Korea in 21-pound packages in exchange for other products.

It is remarked that the limited area of Japan, considered in connection with the steady growth of population, will compel that country to strive for manufacturing preeminence, and to endeavor to export largely of the products of industry and to receive raw material in exchange.

The aggregate of the foreign commerce of Japan for 1899, the island of Formosa not included, was $220,741,443; exports, $82,545,369; imports, $138,196,074.

The notable excess of imports over exports is the result of the season of speculation and extravagance that naturally followed the victory over China and the receipt of a large indemnity from the latter country. The same result followed the payment of the $1,000,000,000 indemnity to Germany by France.

The exportations of raw material from the Island Kingdom in 1889 were $17,602,711; in 1898, they were $29,701,144. The exports of manufactures were: In 1889, $4,258,698; in 1898, $30,210,665.

The importations of raw material in 1889 were $3,576,420; in 1898, they were $27,108,337. The imports of manufactured products in 1889 were $22,688,519; in 1898, they were $64,210,054.

In the list of exports of manufactures from Japan for 1899 figure fifty-eight articles; in that of imports, seventy-five articles. Cotton thread figures most conspicuously among the exports, amounting to $10,000,000 in round numbers. Next are cottons, $6,000,000; matches, $3,125,000; matting, $1,900,000; silk handkerchiefs, $1,360,000; silk tissues, $1,290,000; porcelain and glassware, $550,000; and paper, $220,000. Lacquer work, carved wood, "European umbrellas," fans, various silks, red and blue copper articles, paper work, fermented drinks (sake), leather manufactures, bamboo work, screens, brushes, manufactures of iron, lamps, wheat flour ($54,000), tobacco ($48,000), cloisonnéd porcelain, hats, hand wagons, and ivory work figure in small sums, ranging from $48,000 to $100,000.

Among the exports of raw material, silk, cocoons, and floss silk head the list with $22,400,600; copper, straw matting, camphor, and camphor oils are next in importance with $3,633,537, $1,202,001, and $623,512, respectively. Following these are wax, bamboo, sulphur, woods, fish and colza oil, cotton ($109,148), antimony, shells, mint and mint oil, down, nutgall, and a few minor articles in sums ranging from $60,000 to $100,000.

Among imports, sugar leads with $14,000,000, manufactures of cotton, wool, and cotton thread following with $5,000,000, $4,000,500,

and $4,000,000, respectively. Steamboats were imported to the value of $3,744,097; medicinal plants, $3,300,000; medicines and chemical products, $2,600,000; dyestuffs, $2,000,000; locomotives and their belongings, $2,312,927; and iron in bars, $2,030,900. Paper, clocks, spinning machines, alcohol, rails, leather, sheet iron, and flour figure each with from $2,000,000 to $2,500,000. In values varying from $25,000 to $375,000, there were imported into Japan during 1899 steam engines and boilers, glassware, silk goods, wire and telegraph wire, railroad cars and accessories, tin, celluloid, cotton and silk sewing thread, cotton handkerchiefs, copper piping, gums, cement, perfumed wax, farm implements ($133,457), hats, fire engines, mining machinery, photographic apparatus, veiling, books, mercury, bark for corks, looms and weaving apparatus, and sewing machines.

A volume entitled A General View of the Commerce and Industry in the Empire of Japan, in English, is in the hands of a number of wholesale commission merchants in this city and, I suppose, throughout France. It tells what can be bought in Japan and is printed on such thin paper that its three hundred pages appear to be but a small pamphlet.

Young Japanese travelers are in every part of the world studying some industrial pursuit, not merely as tourists. I have been refused admission for American visitors to large industrial establishments in Lyons because the proprietors had lost all their trade with Japan a short time after allowing an inquiring Japanese traveler to inspect their works.

JOHN C. COVERT,
Consul.

LYONS, *August 28, 1900.*

JAPANESE CONSULAR FEES.

Consul-General Bellows sends from Yokohama, September 6, 1900, the following ordinance, as printed in the Japan Mail:

CONSULAR FEES AND EXPENSES.

Ordinance No. 3 of the Foreign Department.

Rules relating to fees and traveling expenses to be collected by consular officials have been published in the Official Gazette as follows:

ARTICLE I. All fees and traveling expenses that may be collected by consular officials shall be determined in accordance with these rules, except in cases where special provisions are established by laws and ordinances.

ART. II. Consular officials are empowered to collect fees as specified below:

(1) For the protection or supervision of actual or posthumous property as pro-

vided for in Article VI of the consular office regulations, 1 per cent of the value of such property, the maximum amount of the fee being fixed at 50 yen ($24.90).

Note.—No fraction of a sen shall be collected.

(2) For the inspection of registers or other documents as specified in Article VII of the consular office regulations, 50 sen (24.9 cents).

(3) For delivery of copies of registers or other documents, of which authentication has been made, 50 sen to 5 yen (24.9 cents to $2.49).

(4) Delivery of certificates of the receipt of copies of reports, bonds, ships' logs, etc., 50 sen (24.9 cents).

(5) For dealing with the wills of deceased persons, 2 yen (99.6 cents).

(6) Certificates of residence, 1 yen (49.8 cents).

(7) Measurement or remeasurement of ships' capacity, 3 yen ($1.49).

(8) Delivery of certificates as to ships' provisional papers, 3 yen ($1.49).

(9) Certificate as to launch of a ship, 3 yen ($1.49).

(10) Transactions in regard to the departure or arrival of ships—

Vessels of 20 tons or over 200 koku (99.2 bushels) burden, 50 sen (24.9 cents).

Vessels of 100 tons or over 200 koku (99.2 bushels), 1 yen (49.8 cents).

Vessels of 200 tons, 1.50 yen (74.7 cents).

Vessels of 500 tons, 2.50 yen ($1.245).

Vessels of 1,000 tons, 4 yen ($1.99).

(11) Certificates for the departure or arrival of ships—

Ships of less than 1,000 tons, 1.50 yen (74.7 cents).

Ships of over 1,000 tons, 3 yen ($1.49).

(12) Delivery of certificate of ship's health, 3 yen ($1.49).

(13) Official authentication, as specified in Article XLII of the by-laws for the enforcement of the navigation encouragement law, 3 yen ($1.49).

(14) Official authentication of additions to a ship's company, as specified in Article XXIX of the by-laws above mentioned, 1.50 yen (74.7 cents).

(15) Issuing of passports, 2 yen (99.6 cents).

(16) Examination of the same, 1 yen (49.8 cents).

(17) Business in regard to certificates for the import of Japanese commodities into foreign countries, 1 yen (49.8 cents).

(18) Certificates or warrants, or acts of sanction or registration of all descriptions, for which application has been made by the public, 50 sen to 6 yen (24.9 cents to $2.98).

(19) Proceedings connected with arbitrations or attempts to compromise, 2 to 30 yen (99.6 cents to $14.94).

ART. III. With regard to matters which involve special expenses, each application shall be required to bear the amount actually incurred, in addition to the prescribed fees.

ART. IV. The fees specified in paragraph 1 of Article II shall be remitted in case the value of the property does not exceed 200 yen ($99.60).

ART. V. The fees specified in paragraphs 4 and 6 of Article II may be remitted in case the applicant is unable to pay.

ART. VI. With regard to matters that have to be dealt with by consular officials which are not clearly defined in Article II, consular officials, in accordance with usage or with the sanction of the Minister for Foreign Affairs, may undertake the collection of fees below 20 yen ($9.96).

ART. VII. Should it be necessary, upon an application from the public, to deal with any matter by proceeding beyond the limits of the consular district, the expenses of the journey shall be collected.

Such expenses are fixed at 2 yen (99.6 cents) for the first hour, with 1 yen (49.8

cents) increase for each additional hour, but the amount for each day is limited to 8 yen ($3.98). Fractions of an hour shall be calculated as one hour, and any period over six hours and less than twenty-four shall be regarded as one day.

ART. VIII. Fees and traveling expenses collected by consular officials may be paid in foreign currency, the rates of exchange being determined by the Minister for Foreign Affairs.

ART. IX. Fees and expenses of consular officials may, in districts specially designated by the Minister for Foreign Affairs, be paid in revenue stamps.

ART. X. These rules are equally applicable to fees and expenses to be collected by commercial commissioners.

ART. XI. These rules shall come into force on the date of operation of the consular office regulations.

RICE CROP OF JAPAN.

Consul-General Bellows, of Yokohama, under date of September 6, 1900, forwards the following clipping from the Japan Mail:

The Department of Agriculture and Commerce predicts a splendid rice crop this year. Reports received from all the rice-producing centers are the basis of the following estimate:

Year.	Yield.	
	*Koku.**	*Bushels.*
1889	33,007,566	163,813,249
1890	43,037,809	202,028,785
1891	38,123,548	189,203,356
1892	41,378,474	205,357,229
1893	37,199,663	184,628,208
1894	41,815,714	207,527,207
1895	39,920,882	198,123,345
1896	36,199,771	179,657,843
1897	33,039,293	163,970,707
1898	47,387,666	235,180,248
1899	39,698,258	197,018,485
1900	44,543,446	221,064,668

* 1 koku=4.9629 bushels.

The average crop being 38,966,858 koku (193,275,715 bushels), this year's yield, if present expectations be fulfilled, will be 5,580,000 koku (27,676,800 bushels), or 14.3 per cent, above the average. It will also be 4,840,000 koku (24,006,400 bushels) greater than last year's crop. In fact, during the twelve-year period ending 1900, it seems probable that only 1898 will be able to boast a better crop than that of this year. The difference between this year's crop and last year's, in money, will be about 50,000,000 yen ($25,000,000).

JAPANESE MUSEUM OF COMMERCE AT BANGKOK.

There has recently been established in this city a museum of Japanese manufactures and products. This institution is under the direction of the Japanese Government, which pays all the running expenses, except the salary of the director.

The establishment occupies large and commodious rooms in one of the busiest portions of the commercial city. In these rooms it is proposed to display a sample of every commercial product of Japan. There are a number already on exhibition, and our neighbors of the Far East are making a decidedly favorable showing of their manufactured products. A corps of polite clerks is in constant attendance to assist any who may wish to look over the exhibit, and anyone can order goods from the sample, a per cent being added to the price mark. This per cent has been fixed in Japan and is invariable. In case the purchaser wishes to pay freight himself, the per cent is simply the commission that goes to the director in place of a salary. If desired, however, the establishment will deliver the goods to the door of the purchaser, adding to the producer's price such a percentage as will cover commission and expenses. All items of expense, whether of postage, cable, freight, or commission, are entered upon the bill of the purchaser. By employing as director a man who has other business interests in Bangkok, the Government has been able to secure a valuable agent of successful business experience and wide acquaintance with the people.

The museum has been opened now for six or seven weeks and is proving an increasing success. The oriental merchant has little use for catalogues, price lists, and pictures. He objects to the salesman for the reason that his samples go with him, and he leaves nothing to enable the purchaser to compare the goods delivered with those ordered. Here, the samples can be inspected and the goods compared with the samples; the merchant can deal with a firm that is established in his city, and the goods are not to be paid for until he is satisfied that they are what he ordered. The straightforward manner of fixing the purchasing price appeals to both oriental and occidental.

Orders are accepted for large or small quantities, and the small purchaser gets the advantage of freight rates on the large orders if he is willing to wait. As a result, the patrons of the museum are by no means confined to the mercantile class, and the European population of the city are availing themselves in no small degree

of this opportunity of doing business with a splendidly stocked Japanese bazaar.

The trade between Japan and Siam had not assumed proportions sufficient to warrant notice in the annual customs reports of Bangkok until last year, when, as the first fruit of Japan's intelligent endeavor, this trade is reported as $74,960.

HAMILTON KING,
Consul-General.

BANGKOK, *August 24, 1900.*

TEA IN INDIA.

Tea is one of the staple products and is becoming one of the principal articles of export of India to the United States. The plant in the wild state is a bushy shrub and sometimes a small tree, but in cultivation it is kept dwarfed by pruning. Like other plants long in cultivation, tea has produced several marked varieties which have been described as distinct species. The East has always been considered the home of the tea plant, China having grown it for centuries, although the original country of tea is not known; it has been found in a truly wild state in Assam. It may be cultivated in the East through a wide range from India to Japan. The industry, however, is not indigenous to India, but rather a child by adoption. It is but little more than a century ago that an attempt was made to cultivate the tea plant in India; and it was not until as late as 1841 that the first public sale of tea occurred at Calcutta, which city seems to have ever since controlled the market of the Indian tea trade.

The area under tea culture in India at the end of 1899 was over 516,732 acres, 65 per cent of this acreage being in Assam in the valleys of the Brahmaputra and Surma rivers, 25 per cent being in Bengal, and the other 10 per cent being divided between the Northwest Provinces and the Punjab, in northern India, and Nilgiris, Malabar, and Travancore, in southern India. The production of tea is therefore, to the extent of nine-tenths of the whole area, limited to the two provinces of Assam and Bengal. There is a small area of 1,390 acres in Upper Burma; but in this province the leaf produced is not made into tea, but is picked to be eaten by the Burmans, and the area and the production may therefore be left out of the account. There are also a few other small areas devoted to the culture, such as the Jaintia and Chittagong Hill tracts, Simla, and Cochin.

The cultivation in India has been mainly concentrated in tracts where a heavy rainfall and a humid and equable climate permit the repeated flushes and pickings of the leaf. In the valleys of the

Brahmaputra and Surma, the yield averages about 448 pounds to the acre; in Bengal, about 406 pounds; and in Darjeeling, about 281 pounds. In Travancore, the average yield is stated at 644 pounds per acre. In the Northwest Provinces, the yield per acre is 297 pounds. Elsewhere the yield is much lower. The area under tea has expanded from year to year without a pause during the last fifteen years. In 1885, the area was about 284,000 acres; in 1899, it had increased to 516,732 acres, the increase being in the ratio of 82 per cent. The average addition in the last five years (23,241 acres) was much larger than the average addition (13,365 acres) in the five preceding years.

The quantity of tea produced has increased in the past fifteen years in a much larger ratio than the area under cultivation; for, while the area has increased 82 per cent, the increase in production has been 161 per cent. In 1899, the production in Assam, where the season was favorable in most of the districts, increased by more than 18,000,000 pounds, and in Bengal by more than 4,000,000 pounds.

The number of persons employed in the tea industry in 1899 is returned at 558,001 (permanently) and 96,615 (temporarily), or, altogether, about two-thirds of a million people (654,616 persons), which would work out to about 1.27 persons to the acre. The capital invested in tea plantation alone may safely be estimated to equal $100,000,000.

The exports, imports, and consumption of tea are given in the subjoined figures. They represent the average for the last five years preceding 1899–1900, and may be taken as approximately the quantity of tea produced and consumed in India. These figures have been furnished me by J. E. O'Conor, C. I. E., director-general of statistics of the government of India.

	Pounds.
Indian tea:	
Produced	160, 643, 992
Exported	155, 474, 416
Left in India	5, 169, 576
Foreign tea:	
Imported	6, 210, 615
Reexported	3, 487, 630
Left in India	2, 722, 985

Thus, approximately 8,000,000 pounds were left in India, of which some 5,170,000 pounds were Indian and 2,720,000 pounds foreign; the bulk of the foreign tea being Chinese, though a substantial quantity consists of Ceylon tea. More than 1,000,000 pounds are purchased annually for the British army, and a larger quantity must be consumed by the European and Eurasian population and by natives, who, in some of the larger towns, are adopting the tea-

drinking habit. For instance, in the city of Bombay the number of small shops, mainly owned by the Iranis, in which cups of tea are supplied at a small charge, are rapidly increasing.

The tea produced in India is exported mainly to the United Kingdom, to the extent of about 97 per cent of the average production. Some portion of the tea shipped to London is, of course, reexported to other countries. A large increase in direct shipments from India to markets outside of the United Kingdom is noted, especially to Australia, Canada, and the United States, where Indian tea seems to be growing in favor. Last year, India exported more than 154,000,000 pounds of tea to the United Kingdom alone. Australia is the next best customer, the United States ranking third. Last year, China herself took something like 1,250,000 pounds of Indian tea; but Russia, it may be mentioned, shows a steady decrease.

The principal markets for India tea are as follows, with the quantities exported to each country in the last four years:

Country.	1896–97.	1897–98.	1898–99.	1899–1900.
	Pounds.	*Pounds.*	*Pounds.*	*Pounds.*
United Kingdom	135,456,884	137,655,857	139,245,995	154,161,492
Australia	6,155,895	6,792,654	6,306,135	8,362,797
United States	784,962	929,704	1,414,000	2,745,000
Persia	1,993,823	1,464,394	3,456,791	1,953,900
Russia	457,634	689,271	500,889	467,451
Kabul, Kashmir, and other transfrontier countries	1,512,784	887,704	1,066,128	2,125,872
Canada	.....	.....	1,044,000	1,933,000

Exports of Indian tea to the United States in 1899–1900 were 2,745,000 pounds, valued at 979,215 rupees ($313,348). There were also sent to Hongkong some 1,248,000 pounds destined for the United States, and a large quantity is forwarded thither from the United Kingdom.

The prices of tea fluctuate greatly. Taking the price in March, 1873, to be represented by 100, it appears that until 1885 the level was well above that point, varying from 110 to 148. In that year, coincidently with the great fall in exchange and in general prices, the level fell to 90, and a low level was maintained in the following years until 1895, when there was a rise again to a high level. In 1897, prices again fell, and they have remained low since, as the consequence of the extremely rapid increase of production in India and Ceylon. In the statistical department of the government of India, the average prices of the various descriptions of tea sold at the public sales during the tea season have been computed for some years past. From these accounts, the following figures are taken, being the prices in annas and pies per pound of the three descriptions, which form the largest proportion of tea sold:

Year.	Broken Pekoe.		Pekoe.		Pekoe Souchong.	
	As.	*Pies.*	*As.*	*Pies.*	*As.*	*Pies.*
1888	10	3	8	1	6	3
188	9	9	7	5	5	7
1890	8	10⅝	7	2	5	8¼
1891	8	7½	7	0½	5	3½
189	11	3½	8	9	6	5¼
1893	9	2⅝	7	2⅝	5	4⅛
1894	11	8	9	4⅛	7	2⅛
1895	9	0	7	3⅛	5	11
1896	8	7¾	6	9 15/16	5	5½
1897	7	5⅛	6	0⅜	4	10⅜
1898	7	0	5	8	4	7
1899	6	9⅜	5	8⅜	5	0⅜

It should be remembered that during this period the Indian rupee has greatly lessened in value, to-day 1 rupee equaling 1s. 4d., or a little more than 32 cents in gold. Twelve pies make an anna, 16 annas a rupee, and 15 rupees £1 ($4.8665). As to the effect the depreciated silver currency has had on prices, I quote from India's able statistician, Mr. J. E. O'Conor, viz:

In the seven years since the closure of the mints, the exports of tea have increased by as much as 39 per cent; and, although prices have not been able to maintain all along what owners of tea estates would regard as a satisfactory level, in the face of the constantly increasing quantities shipped from India and Ceylon to what is after all a limited market, yet the industry has happily not been overtaken by the ruin and desolation which were so freely prophesied to be the consequence of placing the Indian currency system on a sound basis. Nor, happily, are there any indications that the industry is not likely to be even more solidly prosperous in the future than in the past. What a vicious currency system did in Brazil for coffee, the unsound currency system of India was doing for tea. The temporary stimulus given by depreciated paper or depreciated silver led to rapid extensions of cultivation; the increasing supply led to a fall in prices; the fall in prices led to a further demand for depreciation in the currency, in order that the speculative planter might find from the taxpayers the profit which he could no longer find from customers in an oversupplied market. In Brazil, this various circle is still being traveled, and the issue can only be either the ruin of the planters, who are aghast at any suggestion for currency reform, or a complete and hopeless insolvency of the country. In India, this road has been closed, and the capitalist will now place his money in tea with exclusive reference to the conditions of cultivation and consumption and without an eye to a depreciating currency. It is by no means improbable that the near future may see a gradual restoration of the price level, already initiated during the past year, to a level which will satisfy the producers and not restrict consumption.

It will be observed from the foregoing that during the past fifteen years the acreage in tea in India has increased 82 per cent and the quantity of production about 161 per cent, while the prices have correspondingly been reduced. Whatever may be said about overproduction and the low level of prices, these conditions have nevertheless largely stimulated exportation, and India tea has captured new

markets in the world's consumption and developed those already acquired as she could never otherwise have done; and, now that her tea has found favor, her problem of overproduction may be solved by the very causes that produced the conditions.

The quality of the tea depends largely upon the age of the leaves at time of picking; the younger the leaves the more delicate their flavor. There are as many as three, four, and sometimes more pickings during a season. While the many varieties of tea are no doubt produced by the same species, the quality of the product is largely determined by the preparation given to the leaves; it is also much influenced by the soils and situations in which the plants grow. The tea of the hills is different from that of the lowlands, and that which receives but little care is inferior to the highly cultivated. The slopes of the hills are preferred, at an elevation depending upon the climate, and free from stagnant moisture.

It requires about 4 pounds of fresh leaves to make 1 pound of dried tea. The teas of India and Ceylon are mainly dark, or "black," tea, though green teas are made from the same plant. If the process of drying is completed as rapidly as possible after picking, the tea remains green; but for black tea, the process is prolonged and repeated with intervals of exposure, sometimes for several hours, in order that a kind of fermentation may take place. The processes of curing vary greatly, and not always to the real improvement of the tea.

It has been only of late years that the finer qualities of Indian teas have found their way to America. The wealthy Chinese were early buyers, and a portion of the better quality was taken formerly by overland conveyance by Russian merchants.

The quality of the tea is greatly affected by the manner of making it, and I might say that it is impossible to make really good tea with hard water, though the excess of lime in the water may be corrected by the judicious use of carbonate of soda. In the proper making or infusing of tea, the object is to extract as much of the theine—the active principle and aromatic oil—which gives the aroma, and as little as possible of the tannin, which gives tea its astringency. This seems best accomplished by not boiling the tea, but by pouring boiling water on it and allowing it to infuse but a few moments. In some places in the East, tea is made in the cup. The proper quantity of leaves are placed in the cup, boiling water poured over them, and the cup covered for a short time with the saucer. To prevent the leaves from rising to the surface, a perforated bit of silver or silver filigree work is placed over them.

WILLIAM T. FEE,

BOMBAY, *September 19, 1900.* *Consul.*

ECONOMIC CONDITIONS IN INDO CHINA.

M. Doumer, the governor of Indo China, has recently sent a report to the Minister of the Colonies on the condition of that French protectorate.

The Europeans (nearly all French) living in that country have expended a great deal of time and money in what is called rich farming, such as the production of tea and coffee; but it is only within recent years that they have undertaken the cultivation of rice, with native labor, on a large scale. Since this new departure was undertaken, their labors have been found really profitable. M. Doumer says that the production of this article affords an absolutely safe investment for a capital of not less than $5,000 or $6,000, and that its production on a larger scale will yield the most satisfactory results.

From the time that this fact was known applications for concessions became very numerous. At present they cover over 175,000 hectares (nearly 432,425 acres). One colonist works about 13,000 acres; others, 4,000, 3,000, 2,000, and 1,000 acres.

The rice farms are all cultivated on the division-of-profit system, the colonist furnishing the land, implements, advancing money for stock and the support of the family, the natives doing all the work. The support of the family costs but little, as a native lives on 1 or 2 cents per day. This system is so satisfactory that it will be introduced all over Indo China. It has been so successfully applied in olive culture in Tunis and Algeria as to almost ruin that business in France and to cause the uprooting of some forty thousand olive trees during the last six months in the one Department of the Bouches-du-Rhône.

This plan of producing gives a more permanent employment and a better livelihood to the native than he ever before enjoyed. It places the colonist in the position of his banker and business manager. The one has an experience in the lowlands and a capacity for work there which constitutes his capital in the partnership. To this the French manager joins his money and business experience.

It is remarked that, while the colonist can obtain immediate returns in rice culture, he can at the same time gradually feel his way towards some of the higher varieties of production, such as tea and coffee. Nearly 300,000 pounds of tea were exported from Indo China last year. Coffee is cultivated in Tonkin and Anam, and, though the results are encouraging, they are not sufficiently so to justify undertaking its cultivation on a large scale.

M. Doumer says that Indo China can produce coal, iron, tin, and

other metals, and possesses all the resources necessary for the industries that make the prosperity of western Europe. Among the articles that will be exported from that country in the future are rice, rattan, sugar, tobacco, coffee, tea, cinnamon, raw silk, cotton, dyestuffs, corn, sesame, castor oil, poppy, straw matting, and coal.

THE AREA OF INDO CHINA.

If we include the neutral provinces of Siem-Rap and the region between the basins of the Menam and the Mekong, which are already under French influence, the area of Indo China aggregates 900,000 square kilometers (347,400 square miles)—nearly one-tenth the surface of Europe. The great mass of the population is Anamite. M. Lagrillière Beauclerc, who was commissioned by the Minister of the Colonies to visit and investigate the condition of Indo China, fixes the population in his recently published work at 20,000,000—a little more than half the population of France. The same writer places the area of France and her colonies at 10,950,000 square kilometers (4,220,700 square miles) and the population at 90,000,000.

Extending from north to south, Indo China covers 14 degrees, necessarily including a wide variety of climate. In the southern provinces the year is divided into two seasons, wet and dry. In Tonkin and Anam the four western seasons prevail, with the difference that the heat attains an intensity unknown in Europe and the climate is so debilitating as to unfit Europeans for manual labor.

HISTORICAL.

The connection of France with Indo China dates back to 1748, when a warehouse and a trading station were established in Anam. The old customs of China still prevailed, the whole country having been under China for many centuries, until a native vice-king led a successful revolt about the year 1430. During one of the internecine conflicts which broke out with due regularity among claimants and pretenders, the aid of Louis XVI of France was solicited, and a treaty of alliance was entered into in 1787. Thus originated the first claim of France upon Indo China. Bloody and frequent wars have since disturbed the relations between the protectorate and the mother country; but prompt defeats and formidable displays of power created an abiding fear of the terrible consequences of rebellion and of the killing of missionaries, and general peace has prevailed for a period of nearly forty years.

THE PRESENT FORM OF GOVERNMENT.

France has learned, in her dealings with Indo China, that the best way to govern such a country is to interfere as little as possible with its religion and other institutions; to allow the people

absolute freedom whenever possible and not attempt to convince them that their ancestors have always been wrong and that they are on the way to perdition. The attempts to establish the Code Napoleon and French ways of thinking, governing, and worshipping resulted in constant friction and frequent hostilities. Along in the sixties, all the old local customs of the people were restored as far as possible. The communal system of government, which was a part of the inheritance from the Chinese, was again put in force. It is the feature with which the people are in closest touch. It is the nearest possible approach to no government at all, is almost identical with the Russian mir, and is the arrangement that Russia has introduced into Persia.

The communes are independent, unconnected with each other by any law or bond. The mayor is generally a young man, underpaid and overworked. He performs police duty, keeps the list of taxpayers, collects the taxes, and attends to the enforcement of the decrees of the council and government. He holds his office three years and never wants a second term. Above the communal government is a council, composed entirely of natives who are in sympathy with French rule, know its advantages, and are thoroughly determined to accept the inevitable.

The government of the other colonies and protectorates of France—Tunis, Algeria, Madagascar, the French Sudan—is now being administered in a manner approximating the system that obtains in Indo China.

GOVERNOR DOUMER'S RECOMMENDATIONS.

M. Doumer closes his recent report with the observation that Indo China is advancing towards prosperity, and that the many financial reverses that have occurred among the colonists may all be attributed to inexperience, insufficient capital, and absenteeism. He emphasizes the fact that the white colonist can not work in the Tropics, but that with capital and careful attention to business he can enjoy a good income from the work of the native.

JOHN C. COVERT,

LYONS, *September 6, 1900.* *Consul.*

NEW ZEALAND VEGETABLE NOVELTIES.

In Yates' "Annual" for 1900, I have noticed descriptions of several novelties in vegetables, which should prove a boon to localities where droughts are not unfrequent, and especially to cabbage growers. A certain cabbage, called "Yates' aphis-proof cabbage," an Australian-raised variety, gave, notwithstanding the intense drought

of last summer, good hearts and remained almost entirely free from aphis, while every other variety of cabbage was riddled by the pest. A better opportunity could not have occurred for testing its hardiness. After the heart is cut, it throws out a number of small hearts and loose leaves, all of which are tender and of a good flavor; and, as they rapidly reproduce themselves after cutting, a bed of these cabbages will keep a house in vegetables all through the summer and autumn. A cabbage that would really resist aphis and stand the hot, dry summers has long been a desideratum in Australian gardens, and it is thought that this variety will meet the want.

Another vegetable worthy of attention is an "African cucumber," a plant of the cucumber family from Rhodesia, South Africa. The fruit is 6 inches long, of a bright orange color, and covered with spines. Even for ornamental purposes the plant is well worth growing; but it may be also used as a fruit, the flesh being soft and juicy, and in appearance much like passion fruit. Eaten with sugar, the flavor is very similar to that of a rock melon.

Another novelty is called the "mongri," or edible podded radish. It is a new vegetable from Java, and is as easily grown as the ordinary radish, producing enormous crops of long pods, which are crisp and tender, with a delicious flavor. Persons who can not eat the common radish because of its indigestible qualities should hail this new variety with pleasure. It makes an excellent salad; it is also delicious when boiled, having a delicate asparagus flavor.

FRANK DILLINGHAM,

AUCKLAND, *August 14, 1900.* *Consul.*

INDUSTRIAL CONDITIONS IN SOUTH AFRICA.

During my recent trip through the Orange River Colony and the South African Republic, my attention was called to the destruction of wire fencing. For hundreds of miles the fences are down and twisted so badly that they can not be used again. The wooden posts have all been burned for cooking purposes and warmth, and, as there is but little wood in this country, iron posts must be substituted. The Government must fence anew along the lines of railways, and the farmers in the interior must fence also. Plowing was in progress, but the area is limited as compared with former years, and therefore no great demand for agricultural implements may be expected, although many have been allowed to rust and go to ruin. The market for cereals and products of the soil will continue to be large. By March, 1901; a renewal of the demand for farming machinery may be looked for. Meat and live stock will continue to be imported. There was

only three days' supply of fresh meat in Johannesburg when I left there. Although the reoccupation of Johannesburg by the mining and business population can hardly be expected for at least three months, preparations are being made at the seaports, much machinery and goods are stored awaiting the time of shipment, and orders are being placed abroad. The Boers who have returned to their homes are desirous of getting to work, but several months must elapse before things settle down to a normal basis.

The Imperial Government is building railways from Pretoria and Johannesburg to the Orange River Colony border, and engines and cars will be needed. Over one thousand freight cars have been recently ordered by the Cape colonial railways. A new railway is being built from Harrismith, in Cape Colony, to connect with the Orange River Colony Railway, so that there will be two competing lines from the seaports in Cape Colony and Natal to Johannesburg, breaking the monopoly of the Netherlands Railway in the South African Republic, with its 200 per cent profit per year. The new railways will provide sidings for all the mines in Johannesburg, these being very much needed. The bridges over streams and culverts have been destroyed, with few exceptions, and temporary structures erected, and deviations of tracks to reach the lower levels were made. As a result, a demand for bridge material, such as girders, etc., may be expected. Electric and telegraphic materials and supplies will also be wanted. Coal machinery and household and house-building supplies will be needed.

I note that Lord Roberts has appointed an "advisory committee" for the purpose of assisting him in the opening of Johannesburg to trade and commerce, to arrange for the return of the mining population in order that the main industry of the Rand may resume operation, and to arrange for the municipal administration. The mines must be opened in order that the industry upon which Johannesburg and South Africa largely depend may be put in operation to support shopkeepers and the general population of such a city. Like all mining towns, Johannesburg had its full measure of undesirable inhabitants, and it is a question if this element will be allowed to return.

The supply of gold having been exhausted, the resumption of mining will bring improvement in every department of trade. New enterprises will spring up and orders to the value of millions of pounds sterling will be placed in the next two years. The manufacturers of the United States will, with effort, get their share. The following article from the British and South African Export Gazette is so apropos that I insert it.* I wish all our manufacturers

* Extracts from the article are printed herewith.

and producers who desire to export to South Africa would read this paper. I would be glad to mail copies to anyone on receipt of 15 cents in stamps.

[Extracts from inclosure.]

ELECTRICAL GOODS IN SOUTH AFRICA.

It is, perhaps, hardly ten years since the discovery of the rich gold-bearing reefs of the Witwatersrand, but during this period the most marvelous collection of machinery of all sorts has been installed over a line of country about 40 miles in length. There is yet room for a great deal more, as it is a well-known fact that many of the small mines have never been properly developed and many of the large mines have neglected their extensions and deep levels. It will not be many months before the mines will be again occupied and the question of new electrical machinery gone into. Then will it be seen how much of the old machinery has been irreparably damaged by neglect and by water; and, inspired by confidence in the new state of things, orders will go out broadcast for this machinery and for plant which the mines have been waiting for years to put down. New schemes will be taken in hand, new districts developed, and, what is more, every bit of machinery will be wanted at once.

WHO IS IN THE BEST POSITION TO FULFILL THE ORDERS?

In the early days of the Rand, things went pretty much the way of the English manufacturer, and direct-current dynamos from England tumbled into the country as fast as they could be made. But after a little while there came a change over the scene. The Frankfort exhibition was held, polyphase dynamos and motors were shown in operation over long distances, and the superiority of this system for the transmission of power was demonstrated. And then slowly but surely the polyphase machine began to get an entrance into the Transvaal, to the exclusion of the direct-current plant and to the benefit of the foreigner. But the English manufacturer made no move; he has hardly begun to do so now. The result is that the trade has largely gone away from England. In the first place, the Germans and the Swiss benefited largely by this new state of things; but they were greatly handicapped by the demand for similar machinery at home.

AMERICAN ENTERPRISE.

In the meantime, however, the Americans had been adopting polyphase machinery on a large scale, and, what is more, standardizing and making a special study of it. Being more enterprising than their continental rivals, they sent men to Johannesburg, and not only opened agencies, but even went so far as to form a supply company for certain mines. What was the result? Americans are as clannish as the Scotch, and it became the case of the unclean spirit who found the house swept and garnished. American machinery required Americans to understand it; the mines engaged them. These engineers required Americans to drive their machinery; they were forthcoming. New machinery was required; specifications were drawn up by the American engineers in their own language and indicating their own type of machinery.

ENGLISH CONSERVATISM.

English makers could not or would not always quote to new patterns; they had made certain patterns all their lives, and they were not going to change now. To the next thing was but a short step; what more natural than that American dynamos must have American engines to drive them, American pumps to feed the boilers, and to be driven by American motors, and so on ad lib. And now the Rand

is full of American engineers, American practice is de rigueur, and American terms are the vernacular. Specifications are already being handed around for machinery which contain many words strange to our ears, and which clearly indicate their source and the type of machinery required.

WHAT WILL THE ENGLISH MANUFACTURER DO?

Now, where does the English manufacturer stand? Orders for machinery to the value of millions of pounds will be given out in the course of the next year or two, not only for mines, but for towns, which will increase rapidly in size. How many of these orders will he get? Will he strive to get out of his groove? Will he send out or appoint agents who are conversant with the requirements of new countries, or will he continue to try to force them to take the plant he has made for years? It is for him to answer, and not for us. But let it be understood that we do not grudge the Americans their succcess; it is due entirely to their enterprise and our lack of it that they are now more or less in a position to dictate as to the origin of the machinery required. We only wish to issue a warning in time, now that a new state of things is springing up, so that the English manufacturer may get his fair share of the plums.

OTHER MARKETS IN DANGER.

Apart from the question of polyphase machinery, which he is now beginning to make, there are many other directions in which he is at a disadvantage with the Americans. Take the question of overhead-line equipment, for instance. Why is it that we have to buy so much of this material from the States, not only for the Transvaal, but also for our own requirements at home? Are our own insulator makers energetic enough? Another point which applies less to the mines than to the towns is the supply of car bodies and trucks for electric tramways. Hot countries like Africa require open cars or cars without windows and with top canopies; are we going to continue to make closed cars only, because the Englishman is satisfied to travel in the summer in a rolling black hole of Calcutta rather than force the tramway companies to put on cars with open sides in the hot weather?

ENGLISH CAN BUT WILL NOT MAKE TO ORDER.

It is not as if the English manufacturer can not make these things. Indeed, he can make them in every respect as well as the Americans, and the solidity of his work is generally better. But he must standardize his goods rather more, so as to offer them at a lower price and in a shorter time if he wishes to secure his share in the growing South African trade. There is room enough out there for everybody, but we can not afford to let our colonies and our new territories become the dumping ground solely for American machinery, or see all the good posts filled by Americans after we have fought for them ourselves.

I found all the banks open in Johannesburg and Pretoria, but, of course, not doing much business. The stores were largely barricaded and the city looked desolate. In a few months this beautiful city, the greatest gold-mining locality in the world, will commence a new era. But little damage has been done to property. The mines are in good condition and are being pumped.

I trust that our manufacturers and producers who desire to export will take advantage of the openings in South Africa. We do not want exhibitions of American products or elaborate catalogues or price lists; we want "hustlers" such as the United States produces—men to come and study the market, ascertain its needs and

wants, and bring samples with them. South Africa is an importing country, and it has gold and diamonds and copper to pay for its purchases.

In the United States, the daily paper is the best medium of advertising, and, as there are no trade papers published here as at home, the daily or weekly papers would be a good medium by which to bring our products to the attention of the consumers.

J. G. STOWE,
Consul-General.

CAPE TOWN, *August 17, 1900.*

CEMENT IN SOUTH AFRICA.

No country is a better customer for cement than South Africa. All public buildings, warehouses, stores, and residences are built of brick, cemented on the outside. No wood, or "frame," houses are seen. The expert Malays, the masons in this country, are adepts in producing very pleasing effects with cement in the outside finish of buildings. The bricks used in South Africa are two-sevenths larger than the American bricks and are "laid up" principally with "mud," the inferior clay found here, instead of mortar (lime) or cement. Over the whole surface, cement is laid. Bricks of different shapes form the window sills, caps, columns, pilasters, moldings, etc., and over these is spread the cement, forming a very pleasing exterior, the natural stone being closely imitated. Many of the large buildings are "spattered" with the cement, presenting a rough exterior very striking and even durable. I know of no cities that have more handsome and unique building exteriors than the cities of this colony. Cement is also used in making drainpipes, sidewalks, stoops, tiles, chimney pots or tops. Brick exteriors are never seen, as the bricks are inferior, the best qualities being made of clay and coal cinders.

Of the cement imports for 1899, amounting to 126,672,875 pounds, Belgium furnished 18,423,628 pounds; Germany, 7,448,395 pounds; other countries, 605 pounds; and the United Kingdom the balance. During 1900, the imports of cement from Germany have been increasing rapidly, as it has been found that German cement is equally as good as the best English Portland and can be bought at 1s. (24 cents) per barrel cheaper. Belgian cement is good and sells at 18d. (36 cents) cheaper than the English.

Prices per cask c. i. f. are as follows:

	s.	d.	
Belgian "Jossans" brand at	10	0	=$2.43
Other Belgian as low as	8	6	= 2.07
German "Alsens"	11	0	= 2.67

These are per steamer, calculating the freight from Hamburg and Antwerp at 25s. ($6.08) per ton and 10 per cent primage.

English cement shipped per sailing vessels costs about 9s. 6d. ($2.31) per cask c. i. f. for best brands.

When I left the United States, our manufacturers of cement were producing an article which was proved by tests to be as good as the English, and that cement ought to find a large market here. While the United States, at the present time, would be hampered on account of the excessive steamship rates to this country, which would prevent competition with the German and Belgian cements, yet I am convinced, with equal rates, the United States cement could find a market here in large quantities. Cement of the desired quality will never be manufactured here, as the ingredients do not exist.

J. G. STOWE,
Consul-General.

CAPE TOWN, *September 17, 1900.*

FREIGHT RATES TO SOUTH AFRICA.

I have received a letter from an agent of United States goods here re the excessive steamer freight rates on our products to South African ports. As the rates are increased continually, says the agent, it will be impossible for him to sell certain classes of American goods, such as beer, etc. A little over two years ago, the rate on beer (second class) was 25s. ($6.08) plus 10 per cent primage; to-day it is 45s. ($10.95) plus 10 per cent primage, against 32s. 6d. ($7.91) by the German Australian Steamship Company, a regular line of steamers from Hamburg and Antwerp. The reason for the advance is that the steamers lie idle a long time in the harbor. The steamship lines running from New York are controlled by the Bucknell Brothers, of London, managing agents for the various proprietors.

The rates are:

Class.	On steamers from New York to Cape Town (plus 10 per cent primage).		On steamers from Hamburg to Cape Town (plus 10 per cent primage).	
	s. d.		*s. d.*	
First	55 0	$13.38	45 0	$10.95
Second	45 0	10.95	32 6	7.91
Third	42 0	10.22	25 0	6.08
Fourth	36 3	8.82	22 6	5.47

The recent amalgamation of the two mail steamship lines running from England to South Africa has caused an advance in passenger rates, and a rise in freight rates is expected. This same company,

through Bucknell Brothers, also controls shipments from New York. With the new line of steamships from Hamburg and Antwerp to South African and Australian ports furnishing regular fortnightly service at rates named above, the United States exporters are at a disadvantage, and steps should at once be taken to establish a line of steamers from New York, the steamers to be chartered, owned, or controlled by American shippers or export houses. Standing second as does the United States in exports to South Africa, she should not take a back seat at a time like this, when in a few months the South African market will be valuable.

J. G. STOWE,
Consul-General.

CAPE TOWN, *August 23, 1900.*

CUSTOMS DUTIES IN THE CANARIES.

Consul Berliner writes from Teneriffe, July 20, 1900:

The Government has given the right to a provincial company to collect customs duties on the articles mentioned in the following schedule:

Articles.	Unit.	Duty.	
		Pesetas.	
Wheat	100 kilograms*	8.00	†$1.54
In flour	do	13.20	2.54
Millet	do	3.20	.61
In flour	do	4.80	.92
Oats and rye	do	2.60	.50
Barley and maize	do	4.40	.84
Oats, rye, barley, and maize in flour	do	7.15	1.37
Also, an extra duty on all liquors, brandies, alcohols, etc.	100 liters‡	37.50	7.23

* 220 pounds. † Taking the peseta at its nominal value, 19.3 cents. ‡ 26 gallons.

All the tonnage dues, landing charges, and other charges formerly in force have been abolished.

This makes Teneriffe nearly a free port. Formerly, ships making charters for here found after discharging a tax against them for tonnage and landing dues, which led to protests. Now, a ship has only to pay pilot dues—about $6—and no other charges for unloading or receiving cargo. The landing charges on the mole are against the merchandise, and must be paid by the receiver.

TARIFF REDUCTIONS IN THE CANARY ISLANDS.

Consul Berliner writes from Teneriffe, August 25, 1900, that the syndicate to which he referred in his report of May 30, 1900,* has received permission from the Government to reduce the tariff on the following articles, the reduction taking effect on August 25:

Articles.	Unit.	Rate.	
		Pesetas.	
Alcohol and spirits	100 liters	100	*$19.30
Having less than 22° Cartier	do	65	12.54
Liquors, cognac, gin, etc	do	150	28.95
Having less than 22° Cartier	do	100	19.30
Sugar	100 kilograms	70	13.51
Candy	do	85	16.40
Salt fish	do	24	4.63
Cocoa:			
From Fernando Po	do	60	11.58
From other places	do	90	17.37
In paste or manufactured	do	200	38.60
Coffee:			
From Fernando Po	do	80	15.44
From other places	do	100	19.30
In paste or manufactured	do	250	48.25
Chocolate	1 kilogram	1	.19
Sirup, molasses, etc	100 liters	80	15.44
If containing less than 50 per cent of sugar	do	40	7.72
Pepper, cloves, and spices	100 kilograms	100	19.30
Tea	do	150	28.95

* Taking the peseta at its nominal value, 19.3 cents.

PORT CHARGES AT ALGIERS.

Consul Kidder transmits from Algiers, September 1, 1900, copy of a letter from the French Minister of Finance to the director of customs at Algiers, exempting from port charges excursion or tourist vessels touching there. Mr. Kidder adds:

Prior to the imposition of heavy port charges in 1897, nearly all vessels, both from the United States and other countries, making tours of the Mediterranean stopped here, allowing from two to five days for sight-seeing in this picturesque and historic place. As a consequence of the heavy tax per capita on the number of passengers landed, the excursion projectors and steamship companies omitted Algiers from their itineraries, and the number of that class of visitors from the United States alone fell from the maximum of 4,000 in 1897

* See ADVANCE SHEETS No. 774 (July 7, 1900); CONSULAR REPORTS No. 240 (September, 1900).

to less than 1,000 in the season of 1899–1900. As each steamer load left quite a respectable sum of money in the hands of Algerian merchants, the tax was naturally very unpopular, and by means of persistent agitation and direct representation of the governor-general, it has at length been abolished.

Steamship and other companies arranging for Mediterranean excursions for the coming season should be notified of the new interpretation of the law.

The letter reads:

Under date of the 14th of this month, it has been decided that ships exclusively devoted to the transport of excursionists—that is to say, which do not definitely embark or disembark either passengers or merchandise—may be considered as not doing business with the colony, and should for that reason be exempted from the payment of quay dues and sanitary inspection. The fact that excursionists are put on shore to visit the city will not be of a nature to make the said ships lose the privilege of immunity.

As to the ships transporting tourists that definitely embark or disembark travelers, these will be classified in the same way as ships that put into France or Algeria to take or leave passengers and will be subject, like those ships, to the quay and sanitary charges pro rata to the number of passengers definitely embarked or disembarked.

If the captains of tourist ships load or unload goods, properly so called, they will be subject to the common rule for duties.

This decision will not be considered retroactive.

PROPOSED PORT WORKS AT MONTEVIDEO.

On August 21, 1900, before the Minister of Fomento, the special port committee, and the representatives of the bidding houses, the bids for the construction of the port of Montevideo were opened. The proposals presented were as follows:

(1) Sir John Jackson asks for the work the price of $12,352,764, without modifications, and $12,630,310, making some changes in the proposed plans. He also offers to issue bonds for £1,500,000 ($7,299,750), in accordance with the Government, in case his company should be selected to undertake the works, to cover the payment of the same.

(2) Walker & Co. ask for the execution of the works the amount of $12,218,617, cash and gold.

(3) Pearson & Co. ask $14,867,326, saying that they would make a deduction in case the proposed works should be diminished.

(4) The firms of Schneider & Co., Fourgerolles, Bord & Co., and Société Marseilleise presented prices only for different parts of the works, and it would require much figuring to arrive at the total. The calculations could not have been made in the short time since

yesterday, when the bids were opened, but the amount would about equal the Jackson bid.

(5) Finally, the firm of Allard, Coiseau, Couvreux, Duparchy, Dollfus & Viriot offers to the State a deduction of one-half of 1 per cent on the Guerard proposition and states that it would accept bonds in payment of the works, on conditions to be determined by the Government. The Guerard estimates are 60,000,000 francs ($11,220,000).

It is altogether probable that this French firm will be given the contract. It may be added that this carries to the French market the demand for machinery necessary for the work, an item of about $2,000,000, which, it was hoped, might have found its way into American channels. The final decision as to the acceptance of the bid will be made in about two months from date.

ALBERT W. SWALM,
Consul.

MONTEVIDEO, *August 22, 1900.*

RAILWAYS IN URUGUAY.

Minister Finch writes from Montevideo, August 20, 1900, that, according to local papers, an important German syndicate is contemplating submitting propositions for the extension of lines to railway corporations in Uruguay, and has been investigating railway interests in the country. It is true, adds Mr. Finch, that an investigation has been recently made by a foreigner (supposedly the representative of a German syndicate), but nothing definite in regard to his purpose is known. His report, however, embodies much valuable information, some of which has never been published. Extracts from the report are given below:

The number of railroad companies in Uruguay is five, to wit, Central, Eastern Uruguay, Northwestern, Midland, and North, comprising ten lines, the principal ones being to Baso de los Toros; north extension to Rivera, eastern extension to Nico Perez; western extension, Colonia and Mercedes; northeastern branch, Minas; northwestern branch, to San José; Rio Negro to Salto; Salto to Curaeim; Isla Cabellos to San Eugenio; Barra de Santa Lucia, and line to La Sierra.

The gauge of the railroads is 1.44 meters (4 feet 8 inches). The total length, excluding the Western Railway and the tramway and railway of the north (from Montevideo to the Bara de Santa Lucia), is 1,604 kilometers (997 miles), of which 1,149 kilometers (714 miles) is guaranteed by the State; the remainder being without guaranty. The minimum cost per kilometer (0.6214 mile) was $27,924, effected by the Central in 1898–99. This figure does not take into account the original capital of £800,000 ($3,893,200) represented by the northeastern branch from Montevideo to Minas, the working of which in charge of the Central, according to agreement, demands a service equivalent to 7 per cent annually, after calculating the net income and the State guaranty. The maximum per kilometer—$37,306—was on work done by the Northwestern.

The transportation of products (except in 1896–97 and 1897–98, when abnormal conditions prevailed) has a tendency to increase. Expenses have been in proportion to receipts; they have been heavy for the Midland, North, and Northwestern roads, owing to the necessity of frequent renewals of the roads.

The Central Railway is prosperous, on account of the development of production in the rich zones through which it passes. On the other hand, the Midland suffers from the competition of the river boats; the Northwestern has been subjected to heavy expenses for improvement; and the North Railway, which is largely dependent for traffic on the movement of the saladeros, has found its receipts materially diminished by the paralyzation in those establishments. The Eastern Uruguayan Railway has a length of only 50 kilometers (31 miles) and runs through a country relatively uninhabited. The guaranties of all the lines have been regularly paid, though only two—the eastern extension and the northeastern branch of the Central Railway—have produced good profits. For these two lines, the amount paid by the State in guaranties has been: Eastern extension, $847,997; northeastern branch, $363,203.

The capital employed in material for working the railways by the various companies mentioned amounted to $46,823,934.

TRANSPORTATION AND TRADE IN GUATEMALA.

The recent successful negotiations* for the completion of the Northern Railway, entered into between the Guatemala Government and the Central American Improvement Company, have had a stimulating effect on the people of the Republic. The completion of the railway will effect direct communication between the Atlantic and Pacific, and will no doubt attract shippers in the direction of New Orleans and the Gulf. Heretofore, the principal American imports have come by the Pacific Mail Steamship Company's boats from San Francisco, there being a direct steamer route from that city to the port of San José de Guatemala (which port is the terminus of the Central Railway), operated in conjunction with the Pacific Mail, both being controlled by the Huntington syndicate. Transportation on the Atlantic side via the Gulf of Mexico has been an impossibility, owing to the lack of railway facilities from El Rancho to the city of Guatemala, a distance of 60 miles.

Pacific coast transportation has been improved by a new German steamship company—"Kosmos"—making closer connection with the United States via San Diego, Cal. This has caused a slight reduction in freight rates. Harbor dues remain the same, while lighter and wharf charges are 20 per cent higher.

Permit me again to emphasize the necessity of our manufacturers showing their goods. The catalogue and circular method of advertising does not appeal to the buyers in Guatemala. A display is necessary. By this method, the European houses have captured and

* See ADVANCE SHEETS No. 843 (September 26, 1900).

retain the trade. I repeat, also, that the American manufacturer must make what the people want. They must study the trade and gratify the people in this regard. The establishment in Guatemala City of a sample warehouse, where United States manufactures and products can be seen and examined, would no doubt serve to increase our trade in this Republic. If, therefore, American houses desire the trade of Guatemala, they must comply with the following conditions: Show their goods and demonstrate their merit; give longer credits; pack well and cater to the wants of the people, who by universal custom wear certain styles and qualities and will not change. American houses, by reason of geographical advantage as well as superior quality of goods, should have a monopoly of this market. This can readily be accomplished by complying with the conditions I have just mentioned.

I believe that a small, inexpensive cooking stove would find a ready sale in this market. Those I have seen are either too large or too expensive.

JAMES C. MCNALLY,
Consul-General.

GUATEMALA, *September 20, 1900.*

BRITISH HONDURAS RAILWAY.

On August 22, 1899, I wrote the Department that a bid for the proposed railway had been accepted,* subject to conditions to be specified in a contract to be drawn by the Crown agents in London. On January 24, 1900, I notified the Department that the bid had been withdrawn,† owing to advances in railway material, and that this colony would be glad to consider offers made by any reliable contractors.

In the meantime, the drawing up of the contract seemed to be unduly delayed, and no offer could be made where conditions and plans were unknown; but a few days ago the printed contract was received by this government, and I forward it in the hope that it may yet be awarded to some railway capitalist or company in the United States, for certainly if a grant of £75,000 ($364,989) and a liberal land concession can attract foreign capital with a prospect of fair profit, the nearness of this colony to our own markets should indicate that American capital would receive a larger margin of profit. It will be noticed that the road in this colony and the extension into Peten, Guatemala, are to be under the same management and subject to same conditions, and that a concession from Guatemala must be given

* See ADVANCE SHEETS No. 529 (September 15, 1899); CONSULAR REPORTS No. 230 (November, 1899).
† See ADVANCE SHEETS No. 663 (February 26, 1900); CONSULAR REPORTS No. 235 (April, 1900).

to whoever builds in British Honduras. I am officially informed that this concession will be given when this contract is properly closed, for it means a great deal to Guatemala to have the rich State of Peten opened up and developed. The royalty on woods alone will be a steady source of revenue to that Republic.

It is difficult to present the financial profit of this railway without being suspected and perhaps accused of interested motives; but there is one prospect for the future that admits of no dispute, and that is that there is enough freight traffic for two trains a day from Peten, in logwood and mahogany alone, to keep a railway busy for fifty years. There is no other outlet for the rich lumber wealth of Peten, except by rail to Belize. For many years, the passenger traffic will be light; but, after all, it is freight that pays, and that is forthcoming.

It is to be regretted that this matter can not be settled by the government of this colony; but, as the British Colonial Office is behind the contract and guarantees good faith, all bids, if offered, must be sent to London, and as "this draft contract is circulated without prejudice as a basis for negotiation with individuals or firms who may contemplate tendering for the construction and working of the railway in question, the secretary of state, acting on behalf of the government of British Honduras, holding himself free to modify any of the terms either of the draft contract or of the specifications," our railway builders should at once, if they wish, accept the contract either in its original or modified form.

It may be well to call attention to one advantage of a railway in this colony over other Central American roads, and that is the stability of the guaranty and the security of all the properties, because the Colonial Office of Great Britain will support and control the road now and in the future; and that means both in British Honduras and in the State of Peten, for undoubtedly such power must be given by Guatemala when granting the concession, as it is one and the same road.

The Peten country in Guatemala embraces 13,000 square miles, with a population of 8,600 people. It is a level and fertile country of almost unbounded wealth in woods. It is like opening up the lumber region of Wisconsin fifty years ago, except that there were several outlets for the wooded wealth of that State. From Peten, it can only be by rail, and to the east, as the western boundary of the State is a range or ranges of high mountains, which a railway will not penetrate for many years, if ever.

W. L. AVERY,

BELIZE, *September 20, 1900.* *Consul.*

SUMMARY OF PROPOSED CONTRACT FOR BRITISH HONDURAS RAILWAY.*

A company is to be formed under the companies acts, 1862 to 1898, with a nominal capital of £700,000 ($3,406,550), the share capital to the nominal amount of at least £675,000 ($3,284,887) to be bona fide subscriptions, so as to be payable in cash in such installments as approved by the Crown agents; this latter amount to be paid into a separate account (called the railway account) in the names of trustees and held free from any charges in respect of the formation of the company or of any other matter.

The works fund shall be applied in the constuction of the railway according to certificates signed by the government engineer and countersigned by the colonial secretary. After the cost of the works is paid, the residue, if any, shall be paid to the company.

The contractors shall use their best endeavors to procure a concession from the Government of Guatemala to construct a line of railway which shall be an extension of the road in the colony. If the authorization is not obtained in nine months, either of the parties to this contract may terminate it.

In accordance with specifications, the company is to construct and equip a railway, single line, 3 feet gauge, running from Belize through the colony to the western frontier; also a landing pier at Belize, so constructed that the depth of water at the sea end, for at least one hundred years, shall never be less than 19 feet at low water. The Guatemala extension is to be of the same gauge. Defective work may be rejected by the government. The company shall submit surveys of the respective sections to the government engineer for his approval; also plans, etc., of bridges, buildings, and the like. The company shall be entitled, free of charge, to the use of all surveys, plans, and reports relating to the works that are in possession of the government.

The railway shall be considered as divided into five sections of about 15 miles each. Surveys must be begun within three months from the date of contract, and that of each section must be completed at least eighteen months before the date fixed for the completion of that section; the actual construction of each section shall be begun nine months before the date fixed for the completion of the section; and the railway shall be opened within the following times: First section, within twenty-one months from date of contract; second, twenty-seven months; third, thirty-three months; fourth, thirty-six months; and fifth, thirty-nine months. The engineer may extend these periods. The company may take timber that is the property of the government for use in the works; lands taken for the railway are to be fenced when required. The tolls for conveying passengers or goods and for the use of the pier are to be subject to the approval of the government. Mails, government officials, troops, etc., are to be carried at reduced rates; landing and embarking of mails are to be made without charge. The company is not to use telegraphs or telephones except for railway purposes; the government may erect telegraphs or telephones along the line for its own use.

At least one train per day shall be run each way, carrying passengers at an average speed of not less than 12 miles per hour, on all parts that are open for traffic. The government will not grant concessions for railways in the colony without first offering the same to the company, and will grant the company running powers over any other railways constructed. Branch lines may be constructed by the government and others to join the railway, and the company shall make arrangements for the interchange of traffic passing over other railways.

The company may, after the works are completed, issue debenture capital.

* Full text of contract, covering all details as to construction, payments, etc., is filed in the Bureau of Foreign Commerce, where it may be consulted by partics interested.

After the works have been opened twenty-five years the government may, on twelve months' notice, purchase the railway and pier, paying a sum equal to the aggregate amount of so much of the works fund as shall have been paid to the company, with such additional sum as shall have been certified in writing by the government engineer as having been expended by the company in the improvement and development of the work and to have been properly charged against capital, and a sum equal to five years' purchase of the average net receipts of the company for the five years preceding the date of the notice to purchase, after deducting what should be deducted for depreciation. There shall be deducted from the aggregate amount all moneys which the government shall have paid the company on the subsidy of £75,000 ($364,989) hereinafter mentioned. The government may also retain money to satisfy any claims due against the company which would be properly chargeable against the revenue account in respect of the railway and pier. The purchase by the government of the railway and pier and extension in the manner aforesaid shall discharge the company from all liability in respect to their future working. After the railway has been opened nineteen years, yearly accounts are to be furnished by the company.

The government shall pay a subsidy of £75,000 ($364,989) in gold in five installments of £15,000 ($72,997), one for each of the sections of the railway as finished; also a subsidy of 200,000 acres of Crown lands, to be alloted in a manner provided—40,000 acres for each section, half to be granted on completion of the section and the remainder on the completion of the entire works. The latter lands are to be forfeited if the railway and pier and the Guatemala extension are not opened within the time agreed upon. Minerals found are the property of the government. If the company fails to comply with the contract, the government may terminate it and proceed itself with the works, the company repaying all moneys received in respect of the cash subsidy; and until repayment such moneys shall be charged upon the railway and pier and equipment in priority to all other claims thereon.

Matters in dispute shall be submitted to arbitration.

All the works are to be of substantial character. The minimum width to be cleared shall be 66 feet; embankments shall have a minimum width at formation level of 11 feet in good material, or, if composed of soft material, of such greater width as shall be necessary to insure the maintenance of the minimum width. The steepest gradient permitted shall be 1 in 35 on straight tangents, and the smallest radius of curvature permitted 262 feet. The rails shall be of flanged steel, weighing not less than 40 pounds per yard. Sleepers are to be of colonial wood, 6 feet long and 4½ inches deep and not less than 7 inches wide, and laid on an average 2 feet 5 inches apart. Stub switches shall not be used. Sufficient sidings shall be provided. Timber trestles and bridges of light steel work will be allowed, but all viaducts and bridges shall be designed to carry, in addition to their own weight and that of the floor and permanent way, a moving load for each track consisting of two engines coupled at the head of a uniformly distributed train load, placed so as to give the greatest strain in each part of the structure. Where the railway traverses valleys or marshes, the embankments shall be carried above the height attained by floods.

The rolling stock shall not be less than the following, and shall be increased as required: Three locomotive engines for road, one for yard and pier; 2 passenger cars, first class; 3 passenger cars, third class; 25 flat cars, low sides; 1 horse box, 2 cattle cars, 3 brake vans. The locomotives shall weigh 20 tons and be capable of hauling 450 tons on a level and 80 tons on a gradient of 2½ per cent. The passenger cars are to seat 30 and to weigh 10 tons; freight cars are to hold 10 tons and to weigh 5½ tons.

RAILWAY IN HAITI.

Vice-Consul-General Battiste transmits from Port au Prince, September 18, 1900, translation of a law passed during the last legislative session of Haiti, sanctioning the contract for a railroad from Port au Prince to the Salt Lake, about 50 miles northeast of the city. Mr. Battiste says he is informed that it is the intention of the parties interested in the enterprise to endeavor to raise in the United States the funds necessary for the construction and equipment of the road.

This road, he adds, to which some reference is made in the CONSULAR REPORTS for September,* will pass through the plains of Cul de Sac, where are situated forests of valuable woods, which will be made available to commerce by this means of transportation.

A summary of the contract is given below:

Contract between the Secretary of State for the Department of Public Works, acting in the name of the State, on one part, and Gen. Brenor Prophete, landowner domiciled at Port au Prince.

The Government concedes to Gen. Brenor Prophete, for the account of a society of shareholders to be organized and for fifty years from the promulgation of the law, the exclusive privilege of building and working a railroad from Port au Prince to the Salt Lake, passing through Croix des Bouquets, and the right to establish on the lake a navigation service. The State declares this railroad to be a public necessity, and authorizes the laying of the rails on the side of the public highway, the extraction of materials and woods from the public lands situated along the course of the line or on the border of the lake in a radius of 7 kilometers (4.35 miles). It engages itself to expropriate private lands when necessary, at the expense of the concessioners and conformably to the laws.

The State will grant the concessioner a guaranty of 6 per cent per year on the actual cost per kilometer (0.6214 mile), this cost being fixed at a maximum of $16,000. It devotes to this guaranty 5 cents gold per 100 pounds of the export dues on coffee. In case the extension of the line should be necessary, the State engages itself to give the preference to the concessioner, who, in return, shall not refuse to come to an agreement with a neighboring line granted to others.

Within six months after the promulgation of the law, the concessioner must submit definite plans of the line to the Secretary of State for Public Works.

He must have commenced the work, such as the embankments, masonry, and laying of the rails, in nine months and have completely finished the construction of the line in two years, under penalty of a foreclosure, excepting in case of force majeure duly verified.

The width of the road, inside measurement between the rails, shall be 30 inches, and the steel rails shall weigh at least 35 pounds to the yard. Crossings shall be established in a manner not to incommode the circulation of carriages and carts and to insure the security of the passage of the trains. The road should permit normal traffic with locomotives weighing 25 tons.

The concessioner shall employ in the execution of the work only materials of good quality; he shall be bound to conform to all the rules of workmanship so as to obtain work of perfect solidity.

* Page 128; see also ADVANCE SHEETS No. 783 (July 18, 1900).

Within thirty days after the promulgation in the Moniteur of the sanctioning of the present contract by the legislative body, the concessioner should have deposited at the National Bank of Haiti a security of $5,000, which shall be reimbursed to him on the completion of the railroad or shall remain to the account of the public treasury in case of forfeiture of the concession.

The materials and apparatus for working the railroad, as well as the vessels that bring them, shall be exempted from all customs dues and taxes, excepting those that have been the object of a special concession.

The Government will assist the concessioner with all its power during the duration of the work.

The railroad and all its dependencies, including the wharves and boats for navigation on the lake, shall be constantly kept in good order at the expense of the concessioner, under the control of the Department of Public Works.

At least two passenger trains a day shall be run each way at minimum speed of 20 kilometers (12.4 miles).

The rolling stock shall include two classes of carriages for travelers and for merchandise, open cars and closed cars, all in sufficient number to supply the public needs.

Private branches may be established by common consent between the concessioner and the interested party, without any guaranty from the State.

The cost of transportation per league of 4 kilometers (2.48 miles) shall be agreed on between the concessioner and the Secretary of State for Public Works, based on the following maximum figures, merchandise to be delivered at the railroad station:

	Gourde.
100 pounds of coffee or all merchandise subject to damage	0.03
Barrel of 60 gallons of rafia or other liquids	.13
100 pounds of logwood, mahogany, or wood for building purposes, etc	.02
1,000 pounds	.20
Travelers:	
1st class per league	.20
2d class do	.12

The postal service shall be effected gratuitously by the railroad over all its length. Bodies of troops and materials of war shall be carried at half the tariff rate either on the trains of the ordinary service or on special trains, on request from the Ministry. All officers of the State having a requisition signed by the Administrator of Finances and the commandant of the commune of the place of departure shall be admitted in first class at half price. Members of the Government and of the legislative corps going to exercise their functions shall travel free in first class over the length of the line.

The concessioner shall be obliged to establish a telegraph or telephone line devoted to the service of the railroad and, in case of need, to that of the State.

PROPOSED RAILWAY FROM BRITISH GUIANA TO MANAOS, BRAZIL.

I submit for the consideration of those who seek a profitable investment and those in whose power it might be to encourage in every reasonable way such investment within their jurisdiction, a perfectly feasible railway route from the Atlantic seaboard in British Guiana to the flourishing capital of the State of Amazonas in Brazil.

THE ROUTE.

Two locations are available as a starting point—one at Bartica, at the head of navigation, 50 miles up the Essequibo River, and the other at Georgetown, at the mouth of the Demerara River, the capital and commercial center of the country.

The line from Georgetown would be up the valley of the River Essequibo to a suitable point for crossing that stream; thence southwesterly to the valley of the Takutu and the River Branco; thence south to the River Negro; thence down the valley to the objective point named, distant about 700 miles from the place of beginning. Three hundred and seventy-five miles of the line would lie in British territory and the rest in Brazil. The favorable topographical features of the route and the ample supply of material and labor at hand warrant the belief that the road could be constructed at a comparatively small expense. It would traverse the most healthful region of South America, and for the greater part would be within the influence of the prevailing cool trade winds, and the temperature range the year round would not vary more than 15° F.

It would intersect an immense auriferous and savanna territory, where thousands of people are engaged in mining, stock raising, agriculture, the collection of rubber and other tropical products, and where it is estimated the vast forests would yield sufficient timber to pay for the construction of the road.

SCENIC AND ECONOMIC FEATURES.

On the upper branch of the Potaro River, 1,130 feet above sea level and 35 miles from where it empties into the Essequibo, is the Kaieteur Fall. It is produced by the water of the Potaro flowing over a sandstone and conglomerate table-land into the valley below. It has a perpendicular drop of 741 feet and a width of over 300 feet, varying according to the season. Other falls in the Essequibo River below the affluent of the Potaro are of less magnitude; but they would contribute to the scenic features of the line, and if a sufficiently constant and uniform volume of water could be depended on, would furnish astonishing power for industrial purposes and transmission of electrical energy.

MANAOS.

Manaos, the terminus, situated at the affluence of the Rio Negro with the River Amazon (called in that locality the Rio Solimoens), has a population recently estimated at over 40,000. It is an intermediate port between the mountains and the seaport at Para, where ocean steamers discharge and take on cargo. It is the center of the great fluvial system which has its source in the Andes between

the Equator and the twentieth degree of latitude south, and it is rapidly growing in wealth and commercial importance.

RIVERS CONVERGING AT MANAOS.

The distances navigable for steamers from Manaos are as follows:

	Miles.
To Iquitos, Peru, via River Solimoens	1,350
To Bolivia via River Purus	1,080
To Isabell via River Negro	470
To Boa Vista via River Negro and Branco	400
To San Antonio via River Madeira	470
To Para via River Amazon	1,100
Total	4,870

ADVANTAGES OF THE RAILWAY ROUTE.

The establishment of the road at Manaos would break into the center of the entire system of ocean and river transportation between the Andes and the sea, and upset the usual course of trade by that route and divert the most of it to the seaport at Demerara.

Following are the comparative distances by the present and the proposed route from Manaos to New York:

Present route.—Manaos to Para, River Amazon, 1,100 miles; Para to New York via Barbados, 3,245 miles; total, 4,345 miles. Time to New York at 10 knots per hour, 18 days.

Proposed route.—Manaos to Demerara by rail, 700 miles; Demerara to New York via Barbados, 2,400 miles; total, 3,100 miles. Time to Demerara at 30 miles per hour, 1 day; time to New York at 10 knots per hour, 10 days; total, 11 days.

Difference in distance in favor of proposed route, 1,245 miles; difference in time in favor of proposed route, 7 days.

ADVANTAGES TO TRADE AND COMMERCE.

All commercial intercourse with the vast area embraced in the Amazon basin and extending into Bolivia, Peru, Ecuador, and Colombia would be greatly facilitated. The mails from the United States and European countries for commercial points in this region would go and come by this railway route to Manaos, and the bulk of the exports and imports of the entire region now traveling lazily to their destination would take the speedier and more economical route. Shipments of rubber by this line would be especially advantageous, as it would save to the exporter the tremendous shrinkage involved in the present route. The resources of the entire region would be made more available, and the industrial and commercial activity which would follow would, I think, be astonishing. The

harbor at Georgetown would be crowded with the fleets and commercial products of Europe and America, which now go round via Para and the River Amazon, and both Manaos and Georgetown would become great centers of commercial activity and distributing points of an enormous and constantly increasing volume of trade.

AGGREGATE VALUE OF FOREIGN TRADE FOR 1899.

It can not be stated definitely what proportion of the commerce of Bolivia, Peru, Ecuador, and the Amazon basin about Manaos now goes by the river routes to the Atlantic coast at Para. The Review of the World's Commerce for 1899, published by the Department of State, shows the aggregate value of imports and exports of those countries, including all Brazil, to be $285,645,300. The export of rubber alone from Manaos and Para during the fiscal year 1898–99 amounted to 25,246 long tons.

GEO. H. MOULTON,
Consul.

DEMERARA, *August 23, 1900.*

ELECTRIC LIGHTS AND CARS IN ASUNCION.

The Paraguay Development Company, incorporated with $500,000 capital under the laws of the State of New Jersey and having headquarters in Philadelphia, has been granted by the Paraguayan Government a concession to light the city of Asuncion and to run tram cars by electric power.

The concession is for twenty-five years, and the light and traction service must be open to the public within two years from date of concession (August 30, 1900).

The representative of the company in Paraguay is Mr. Carlos R. Santos, late delegate to the Philadelphia Museum exposition.

In my opinion, the grant is very valuable, and it is probable that other concessions would be given to reliable concerns.

The country needs transportation facilities to enable it to exploit its natural resources, and I feel confident that the Government would grant liberal concessions for railways. Industries are unknown in the country, and the Government would welcome and protect the development of almost anything in this line.

W. HARRISON,
Vice-Consul.

ASUNCION, *September 1, 1900.*

TRADE AND ECONOMIC CONDITIONS IN PERU.

Minister Dudley, of Lima, under date of July 31, 1900, transmits copy of the President's message at the opening of the Peruvian Congress, together with translation of certain portions, which are summarized as follows:

The economic situation of the country, on account of the revolutionary movement, is not altogether satisfactory. The sugar industry, however, shows an increase in the exports of 882,539 soles* ($386,552) in favor of 1899.

The increase of commerce with the United States of America is worthy of attention. The gain in sugar alone was 24,192,524 kilograms (55,334,838 pounds) for the year 1899.

The following table shows the general commerce of Peru with the United States for the last four years:

Year.	Value.	
	*Soles.**	
1896	3,089,134	$1,519,854
1897	3,040,150	1,365,027
1898	4,951,902	2,084,751
1899	7,329,642	3,210,383

* In 1896 the value of the Peruvian sol was 49.2 cents; in 1897, 44.9 cents; in 1898, 42.1 cents; in 1899, 43.8 cents.

The total commerce of Peru for 1898 was valued at 82,052,621 soles ($34,544,153); for 1899 the figures were 79,762,414 soles ($34,935,937). The importations and exportations of merchandise were as follows:

Year.	Exports.		Imports.	
	Soles.		*Soles.*	
1898	30,274,776	$12,745,680	19,297,272	$8,124,152
1899	30,725,911	13,457,949	18,734,949	8,205,908

These figures do not include the commerce of Iquitos, which amounted in the year 1899 to 5,384,635 soles ($2,358,470).

The exportation of mineral ores was valued at 10,667,012 soles ($4,672,151).

It is impossible to estimate the wealth of the mines. A comparison of the exportation of metals at the port of Callao during the first six months of the current year with the same period of 1899 shows an increase of 3,459,796 soles for 1900.

The gold standard is now permanently established in Peru. The importation of gold has increased almost 80 per cent since the year 1896. Including the sums held by the banks, the total brought into the country during the last three years amounts to 6,000,000 soles.

* The Peruvian sol in 1899 was valued at 43.8 cents.

The nation has entered upon a new period of industrial activity. Numerous companies have been formed to explore the Amazon region; new roads are being opened in every direction—one to the mines of Santo Domingo, one uniting the port of Paita with Pongo de Manseriche, and also one from Sieuani to the Inambari. There is marked confidence in the stability of order, and under the benign protection of peace old financial institutions and industrial and mining enterprises are thriving and public wealth is rapidly increasing.

ARGENTINE TRADE IN 1900.

Minister Lord sends from Buenos Ayres, August 16, 1900, the following figures,* compiled by the legation, showing the foreign trade of the Argentine Republic for the first six months of the year 1900 as compared with the same period in 1899:

Description.	January-June, 1899.	January-June, 1900.
Imports	$57,452,942	$56,527,693
Exports	89,050,762	94,099,151
Total	146,513,704	151,626,844

Mr. Lord adds:

The decrease of imports was $925,249 and the increase of exports $5,048,389, or a net increase of the foreign commerce of the Argentine Republic of $4,123,140 in the first six months of this year as compared with the first six months of the year 1899.

The following tables show the countries participating in the imports and exports of this Republic during the first six months of 1899 and 1900:

Imports.

Country.	January-June, 1899.	January-June, 1900.	Increase in 1900.	Decrease in 1900.
Germany	$7,008,125	$8,019,795	$1,011,670	.....
West Indies	17,282	12,162	.....	$5,120
Belgium	4,909,365	4,695,464	.....	213,901
Bolivia	29,033	53,844	24,811	.....
Brazil	2,221,300	1,918,027	.....	303,273
Chile	65,150	79,241	14,091	.....
Spain	1,459,073	1,887,683	428,610	.....
United States	6,582,249	5,653,894	.....	928,355
France	5,425,416	5,838,197	412,781	.....
Italy	7,265,492	7,838,252	572,760	.....
Netherlands	64,565	89,191	24,626	.....
Paraguay	702,810	812,492	109,682	.....
United Kingdom	21,294,496	19,307,951	.....	1,986,545
Uruguay	256,745	221,205	.....	35,540
Other countries	151,841	100,295	.....	51,546
Total	57,452,942	56,527,693	2,599,031	3,524,280

*The values given throughout this report are in gold.

Exports.

Country.	January-June, 1899.	January-June, 1900.	Increase in 1900.	Decrease in 1900.
Africa	$227,616	$2,042,517	$1,814,901	
Germany	14,658,348	13,703,887		$954,461
West Indies	80,202	166,573	86,371	
Belgium	11,783,129	13,063,352	1,280,223	
Bolivia	279,706	389,682	109,976	
Brazil	3,261,816	1,841,001		1,420,815
Chile	205,754	421,796	216,042	
Spain	766,014	1,072,447	306,433	
United States	3,201,170	3,626,480	425,310	
France	18,281,346	12,550,390		5,730,956
Italy	2,094,857	2,160,679	65,822	
Netherlands	853,301	2,506,015	1,652,714	
Paraguay	104,196	36,111		68,085
United Kingdom	10,923,002	11,963,596	1,040,594	
Uruguay	2,225,366	869,915		1,355,451
Other countries	3,940,649	4,072,110	131,461	
To orders	16,164,290	23,612,600	7,448,310	
Total	89,050,762	94,099,151	14,578,157	9,529,768

The classes of exports for the first six months of 1900 may be divided as follows:

Pastoral products:	
Live stock	$4, 482, 191
Wool and hides, etc	36, 388, 859
Manufactured articles from animal products	1, 846, 501
Total	42, 717, 551
Agricultural products:	
Raw materials	47, 336, 582
Manufactured materials	554, 531
Vegetable refuse	659, 635
Total	48, 550, 748
Other products:	
Woods and products therefrom	1, 824, 351
Minerals	107, 555
Hunting products	339, 308
Miscellaneous	559, 638
Total	2, 830, 852
Grand total	94, 099, 151

There is no doubt that the decrease noted in the exports to Brazil and Uruguay is due to the quarantine restrictions imposed.

MACHINERY AND KEROSENE IN MARTINIQUE.

Kerosene is imported altogether from the United States and is used by all classes of the population.

Receipts from January 1 to August 31, 1900, were:

	Cases.
By sailing vessels	11,281
By steam vessels	6,900
To which must be added 1 shipment of 10 casks	60
Total	18,241

The duty (customs, municipal, statistical, and wharf) amounts to $1.0581 per case.

Machinery is mostly imported from France, very little coming from Great Britain, while none is received from the United States, owing to the differential duty; the maximum of the general customs tariff being applied to the latter goods, while Great Britain enjoys a minimum tariff rate and French goods pay none. All are, however, subject to the municipal, or octroi, duty.

The differential duty on machinery of all kinds varies from 18 to 30 francs ($3.43 to $5.71) per 100 kilograms (220.46 pounds), net weight, maximum duty, and from 10 to 20 francs ($1.90 to $3.80) minimum duty.

The municipal, or octroi, duty on all machinery and implements for agricultural purposes is 2 per cent ad valorem, and machinery of other denomination 5 per cent ad valorem.

Facilities for transportation of goods of all kinds from the United States are easy and frequent, both by sail and steam.

The Quebec Steamship Company, Limited, of Quebec, Canada, with chief office at New York, has a line of steamers running every eleven days from New York to the West Indies, including Martinique.

A. TESTART,

MARTINIQUE, *September 8, 1900.* *Vice-Consul.*

REBATE IN NICARAGUAN TARIFF.

Vice-Consul Scott sends from San Juan del Norte, August 23, 1900, translation of a decree published in the Daily Official at Managua, August 10, 1900, relative to a rebate on the importation duty of the customs tariff that went into effect on May 1 last* on certain articles. The decree reads:

ARTICLE 1. From the 1st day of September proximo, in the custom-houses of the Bluff and Cape Gracias à Dios, not more than three-quarter parts of the duties

*See Special Consular Reports, Tariffs of Foreign Countries (supplement).

according to the law of customs tariff of the 25th of November, 1899, shall be collected on the articles numbered as follows:

(1) 176. Olives, dressed.
(2) 180. Rice and oats.
(3) 7. Beef, smoked or salted.
(4) 40. Beef of all classes, preserved or pickled, in tins.
(5) 187. Onions and garlic.
(6) 188. Cloves or allspice.
(7) 41. Extract of beef.
(8) 189. Spices, not classified, in grain or whole fruit.
(9) 190. Beans.
(10) 194. Fruit, preserved in any kind of liquor, simple or mixed.
(11) 243. Vermicelli, tallarines, macaroni, and other flour pastes.
(12) 198. Pease and any other kind of legumes, dried.
(13) 347. Wheat flour.
(14) 248. Corn flour or maizena, rice flour, potatoes, barley, oats, rye, sago, tapioca and others similar.
(15) 44. Condensed milk.
(16) 200. Leguminous vegetables in natural state.
(17) 201. Corn.
(18) 46. Hog lard.
(19) 47. Beef fat.
(20) 48. Butter.
(21) 49. Shellfish of all classes, preserved in oil, vinegar, etc., not specified.
(22) 202. Potatoes and other similar vegetables, fresh.
(23) 9. Fish and shellfish, dried, salted, smoked, or pickled.
(24) 203. Pepper, aniseed, and other similar spices.
(25) 256. Baking powder or yeast.
(26) 50. Sardines of all classes.
(27) 102. Brogans for laborers.

ART. 2. The custom-houses shall collect, in conformity with the tariff, the import duties on the merchandise enumerated in the foregoing article, with 25 per cent rebate.

ART. 3. The articles of merchandise with the rebate of 25 per cent will not be permitted to enter any other part of the Republic, without first having a certificate from the custom-houses at the Bluff and the Cape and paying 25 per cent additional importation duty.

TARIFF DECREES IN VENEZUELA.

The secretary of legation at Caracas, Mr. Russell, transmits under date of October 7, 1900, translations of recent Executive decrees, dated October 3, as follows:

WAR TAX.

ARTICLE 1. The Executive decree of the 7th of last February, which establishes what is called the "war tax," is hereby revoked.

ART. 2. This decree shall commence to be in force in regard to merchandise from the United States within ten days, counting from the date of this decree; in regard to merchandise from Europe, twenty days from said date; and in regard to merchandise from the Antilles, six days from the same date.

TRANSIT TAX.

ARTICLE 1. Law 20 of the finance code, which establishes what is called the "transit tax," is hereby revoked.

ART. 2. In conformity with the provisions of section 34 of the present constitution, the Supreme Chief of the Republic shall decide upon the manner of returning to the States the revenue of which they are deprived by the present law.

ART. 3. This decree shall commence to be in force—

For native products, the day when this notice reaches those who were charged with collecting the now extinct "transit tax."

For merchandise from the United States, ten days from the date of this decree.

For merchandise from Europe, twenty days from the date of this decree.

For merchandise from the Antilles, six days from the date of this decree.

ART. 4. The Minister of Hacienda is charged with the carrying out of this decree.

TERRITORIAL TAX.

ARTICLE 1. In all the ports of the Republic into which merchandise is imported and from which merchandise is exported there shall be, in addition to the maritime custom-house, an office for the collection of the territorial contribution established by this decree, with functions and attributes hereby indicated.

The territorial offices of Juan Griege, San Antonio del Tachira, San Carlos de Rio Negro, San Fernando de Atabapo, Porlamar, and Cano Colorado shall be under the control of the collector of the maritime custom-house.

ART. 2. [Treats of the staff of assistants for the territorial offices.]

ART. 3. The territorial contribution shall be collected in the territorial offices as follows:

No. 1.—Foreign merchandise.

Foreign merchandise subject to import dues shall pay as territorial contribution 12½ per cent additional to what is paid in the maritime custom-houses.

The following articles are exempt from territorial contribution: Personal baggage of passengers and immigrants; personal effects which, according to the law, are brought into the country by the President of the Republic, cabinet ministers, foreign ministers, diplomatic agents of the Republic on their return from abroad, and any other articles which, in accordance with special contracts or any other legal cause, may have acquired the right of free entry.

No. 2.—Native products.

Native products are divided into eight classes, as follows:

(1) Gold in the rough, 50 bolivars ($9.65) per kilogram (2.2046 pounds).

(2) Garza feathers, pearls, stones, and precious metals, except gold, 50 bolivars ($9.65) per kilogram.

(3) Caoutchouc and sarrapia, 0.25 bolivar (4.8 cents) per kilogram.

(4) Untanned hides or skins, except those of neat cattle, 0.15 bolivar (2.9 cents) per kilogram.

(5) Chocolate, copaiba, purgo, and untanned hides or skins of neat cattle, 0.10 bolivar (1.93 cents) per kilogram.

(6) Cotton, indigo, coffee, and peruvian bark, 0.07 bolivar (1.35 cents) per kilogram.

(7) Sea salt and indian barley, 0.04 bolivar (0.007 cent) per kilogram.

(8) Free fror territorial contribution—all national products not included in the foregoing classes.

[The rest of the decree treats of the manner of collecting the territorial contribution.]

EFFECTS OF THE CANADIAN PREFERENTIAL TARIFF.

The increase in the Canadian preferential tariff from 25 per cent to 33⅓ per cent in favor of imports from Great Britain has gone into effect. It is too early as yet to estimate the increased business resulting therefrom, but it is not believed that the effect on trade with the United States will be very noticeable. Canada imports from the United States in all one hundred different lines, while there are only four leading lines in which England is prepared to compete with us, viz, wool and manufactures, iron and steel and manufactures, cotton and manufactures, flax and hemp and manufactures.

There were two avowed objects in view in establishing the preferential tariff: (1) to divert Canadian trade from the United States to Great Britain as a protest against the enactment of the Dingley bill and (2) to cultivate closer relations with Great Britain.

It is manifestly impossible for England to supply Canada with what she has not; consequently, the new tariff in many cases diverted trade from home manufacturers instead of from United States manufacturers. The loss, however, has not been serious to Canada as yet, as the imports from Great Britain from 1896 to 1899 only increased about $8,000,000, the normal growth in trade accounting for fully half this total.

On the other hand, United States exporters to Canada were stirred to renewed activity over the prospective loss of their valuable trade, and the results have surprised everybody. Instead of losing trade, the United States exports to Canada rose from $61,649,041 in 1896 to $101,642,950 (revised figures) in 1899, or nearly three times the total of British exports to Canada.

It was this unexpected result that largely decided the increase of the preferential tariff this year from 25 per cent to 33⅓ per cent.

A protest now comes, however, from the Canadian manufacturers. At a meeting of manufacturers just concluded at Toronto, it was the unanimous decision that, "while the members of the association favored measures calculated to increase trade between Canada and other parts of the Empire," they were opposed to the increased preference of 8⅓ per cent, as it would injuriously affect certain lines of manufacture.

The Canadian industry that will feel the effect of the new tariff most seriously will be the woolen manufacturers. Over $20,000,000 are invested in Canadian woolen mills. As the imports from the

United States last year of wool and manufactures were only $953,887, against $8,381,147 from Great Britain, it is evident that Canadian manufacturers do not see the particular advantage in being forced into stronger competition with Great Britain.

While trade was not diverted from the United States to Great Britain, as was prophesied in both the United States and Canada, still the second object of the preferential tariff has fully met the expectations of its framers. The British importers, as a result of the preference and as a result of a closer relationship between the Mother Country and the colony growing out of the Transvaal war, are undoubtedly favoring Canada whenever the market justifies it. Sentimental reasons influence trade always, other things being equal or nearly so, and United States exporters and searchers for trade will find this a strong factor in Canada's behalf. Exports from Canada to Great Britain have grown from $66,690,288 in 1896 to $99,091,855 in 1899, a growth of nearly 50 per cent in three years.

An influential proportion of Canadian manufacturers and exporters is insisting that if England is to have the benefit of the preferential tariff, a proper quid pro quo from England would be an imperial tariff on food supplies, admitting the products from Canada, India, and the colonies free. This would be a severe blow to the United States and would prove a trade alliance that would at once lift Canada into a commanding position. In reply to these overtures, however, Mr. Joseph Chamberlin says, according to the Toronto Globe, "that, except on the basis of free trade within the Empire, he would not touch a preferential tariff with a pair of tongs." Canada is not by any means ready to accept free trade within the Empire, as British manufacturers would swamp her home industries; so this danger to United States trade interests seems to be remote.

HARLAN W. BRUSH,

NIAGARA FALLS, *September 4, 1900.* *Consul.*

SMELTING AND MINING IN BRITISH COLUMBIA.

Consul Dudley writes from Vancouver, September 19, 1900, in regard to a recent visit to the eastern portion of the Province. The Le Roi Mine, he says, ships three train loads of ore each day to its smelter at Northport, Wash.; a body of much richer ore has been recently discovered, and engineers report that $10,000,000 worth is in sight. The smelter at Northport has recently doubled its capacity and works twenty-four hours every day, and is still unable to handle the output; the same may be said of the smelter at Trail, which handles the ore of lower grade. Mr. Dudley continues:

A branch of the Canadian Pacific from Robson to Midway,

about 100 miles long, has just been opened, and a new smelter has been erected at Grand Forks. At Moyie City, near the Crows' Nest Pass (on a new line of the Canadian Pacific, which has been open less than two years), I found a very large concentrating plant, and it is claimed that the shipments from the lead and silver mines at Moyie are larger than from any other single mine on the continent.

At Fernie are extensive mines of the best possible quality of bituminous coal, which now turn out 1,100 tons each day. Three hundred and twelve coke ovens were at work and one hundred and ten more in process of construction. About 380 tons are being shipped per day, and the manager says the output will be doubled in the next three months. A train load of coal is shipped west and south from Fernie each day to supply the Great Northern Railway, and another train load of coke is sent east and south daily.

From the Slocan district, ores containing a very large percentage of lead or "wet ores," as they are called, are shipped to different smelters in British Columbia and the United States, and even as far as Chile, to be used in fluxing the dry ores found in those districts.

NOTES FROM DAWSON AND TANANA.

The past summer has been unusually rainy. For the last month there has been an abundance of wild blueberries, currants, raspberries, and cranberries. The cattle herders on the hills and a few Indians gather the berries and bring them to Dawson, receiving $1 to $1.50 per quart.

The governor-general of Canada, with his wife and suite, recently spent three days at Dawson visiting the mines and vicinity.

ICE PLANT.

The idea of building an ice plant in Dawson seems like "carrying coals to Newcastle." The lack of ice in summer, however, has been seriously felt, and a contract has been given to the McDonald Iron Works Company for an ice machine to be placed in a cold-storage warehouse. The cost of ice this summer has been 5 cents per pound, or at the rate of $100 per ton.

MINING.

More claims have been worked this summer than in any previous season. On account of the extra rainfall there was sufficient water for sluicing. Many owners will work their claims only during the summer, letting them lie idle in winter, as they can dump the dirt or clay directly into the sluice boxes in summer, and not have to handle the ground twice. Machinery is found everywhere in the

district; no one thinks now of working claims without boiler, engine, and pump.

The amount of gold sent out to date this season, as per consular invoices, is $12,500,000; it is possible that about $250,000 has gone out without any record.

SMALLPOX.

Smallpox is practically stamped out in Dawson, no new cases having appeared for over three weeks. There is no danger of the disease being brought from St. Michael, as at this season it takes a steamer nearly three weeks to come up. The chief menace is from the upper river.

TANANA MINING DISTRICT.

This section of Alaska still occupies the attention of prospectors. There is a large area with more streams than in any other mining district so far discovered in Alaska; all bear gold, which will give work later on to an army of miners. The cost of transportation to this region is now too high—$1.25 per pound. This, added to the cost of provisions, etc., makes it very expensive to work there. Many miners staked claims and may possibly never return. The mining laws of the United States do not require representation of claims for one year after the 1st of January after recording. This gives owners until 1902 to prospect, practically locking up the country.

J. C. McCook,

DAWSON CITY, *August 22, 1900.* *Consul.*

CONDITIONS IN THE YUKON.

Consul McCook writes from Dawson City, September 17, 1900:

Dawson to-day presents a marked contrast to the Dawson of 1898. Then no one, except possibly the judge on the bench, wore a white shirt. The town was thronged with miners, with packs on their backs, prospecting for gold. The streets were veritable mud holes. To-day, people dress much as they do in cities of the United States; it is unusual to see a man with a pack on his back, and one can walk over the town with polished shoes without getting them soiled.

IMPROVEMENTS IN DAWSON.

To one just coming in, Dawson presents no appearance of a mining town, but seems a thriving commercial center, with rows of splendidly equipped stores, substantial wharves and warehouses, good hotels, and streets lighted with electricity. Electric railroads are promised by New Year.

There are fewer houses in Dawson for rent at the present time

than since it was a tented field, notwithstanding the fact that over $500,000 have been spent this summer in new buildings. Many new homes are being built—good, substantial frame buildings. Public schools have been opened and are well attended. About October 1 we will have direct communication by telegraph via Vancouver and Victoria, British Columbia, thus avoiding the delay by steamers carrying the message from Seattle or Vancouver to Skagway.

Dawson is crowded just now, more coming than going. Several hundred have come back from Nome to make Dawson their future home. Miners' wages are now about $4 per day.

SALE OF CLAIMS.

The Government at Ottawa, it is reported, will offer for sale at public auction in Dawson every claim that has reverted to it by lapse or otherwise, and thirty days thereafter all claims not sold will be declared open for location.

OUTLOOK.

Under date of September 24, the consul adds:

The output of gold has been increasing, in spite of the fact that the average values of the gravels worked have been steadily declining, the richest mines having been worked first. However, in the meantime the cost of working has been decreasing, which enables properties to be worked that would not have yielded profits in 1897 and 1898. There should be a continued output of from fifteen to twenty millions a year for many years to come, if the expenses of working are further reduced. The main causes for the high cost of working at present are as follows:

(1) Combination on the part of merchants and traders to keep up prices. There are in Dawson a great many people who make a business of watching the market, forming corners, and raising prices. It is not uncommon to see the price of staple articles of food double or treble in value within twenty-four hours.

(2) High cost of transportation from Skagway to Dawson or by sea and up the Yukon River to Dawson.

(3) Bad condition of the roads and consequent excessive freight rates to the mines. At times, it is absolutely impossible to take freight along the main creeks except on mule back. This prevents the moving of machinery and involves delay. The average rate of freight from Dawson to the mines during this summer, when it was lower than it had ever been before, was from 3 to 15 cents per pound, according to distance, or from $60 to $300 per ton. However, the Government is making roads on several of the creeks, and these will afford considerable relief.

(4) Unsatisfactory mining regulations, which cause many disputes as to title and heavy cost for settlement. This is due to having regulations here more applicable to other districts, but the Government is now taking steps to reform these matters.

(5) A charge of 10 per cent on the gross output of any claim over $5,000 per year is made. This, with the miner's license, recording fees, and other Government charges, prevents the working of a great many mines.

(6) There can be no doubt that gambling has done very much towards retarding the development of the country.*

(7) As a large part of the ground worked must be thawed, generally with steam, immense quantities of fuel are required. The hills in the neighborhood of the mines have been denuded of forests, and the cost of fuel is increasing. From $12 to $25 per cord is now paid for wood. The remedy for this difficulty will be in building a railroad to the principal creeks to convey wood and coal from Dawson to the mines.

Considerable capital has come in from England in a tentative way—probably $3,000,000 or $4,000,000—and the representatives have stated that their people were prepared to put in any quantity that the conditions would justify. Their experience of the past two years, however, has been discouraging, and a number of them speak of quitting entirely unless changes are brought about that will enable them to handle large areas of gravel cheaply.

COPPER AND QUARTZ.

There have been no discoveries of copper in the immediate neighborhood. Considerable prospecting is being done near Whitehorse, and good results are claimed. Not much attention has been paid to quartz until lately. A good many reports of discoveries have been made, and some prospecting is being done near Dawson and along the Yukon and its branches farther up.

Recently, some valuable placer gold claims have been located in the Stewart River mining district, over 100 miles from Dawson. Several hundred miners participated in a stampede to this district. There is no doubt, now that this Klondike section has been thrown open again by the Government to prospectors, that many new discoveries will be made in the near future.

ALASKA.

A party of miners leaves here to-morrow for the Chandelar River, which joins the Yukon River below Fort Yukon. They claim they have found good prospects there on a tributary of the Chandelar, about 150 miles from the Yukon.

*An edict has just been issued from Ottawa to restrict public gambling.

NOTES.

Locomotives and Trucks in Cape Colony.—Consul-General Stowe sends from Cape Town, August 31, 1900, copy of a circular issued by a Rand firm to mining companies, saying that, in view of the scarcity of rolling stock, the director of railways proposes the purchase in England or elsewhere of fifteen 69-ton engines of similar pattern to those recently ordered by the Natal Government railways, the cost to be about £4,000 ($19,466) each; also of two hundred 30-ton flat-bottomed steel trucks with bottom openings, of a type suitable for the conveyance of general goods, to cost about £400 or £500 ($1,946 or $2,433) each. Mr. Stowe adds:

The chamber of mines has been discussing the question to the end that orders may at once be placed. Tenders have been asked for from United States manufacturers, and the bids are much lower than those from England. The time of delivery is also in favor of the former—thirteen weeks against six months. I am informed that an order for about one thousand ordinary flat cars has been placed by the colonial railways of Cape Colony. The military director, I am told, favors English manufacturers, even at higher figures.

American Flour in South Africa.—Consul Hughes, of Coburg, September 6, 1900, quotes the following article from the Melbourne Journal of Commerce:

It is the height of folly to send flour to South Africa in 200-pound bags, that being a country where the natives are not disposed to handle heavy packages. Especially is this true at present, when handy packages are so much in request for transport by mules, pack horses, etc. The 50 or 100 pound bags of flour from the United States arrive out white, clean, and tastefully branded, with no chance of rough jute fibers finding their way into the material. The Australian bag, on the other hand, is unwieldy, out of all decent shape, and looks dirty and uninviting. We are assured that repeated consignments of American flour pass through the Durban stores while one Australian importation is being got rid of. There are a few millers and shippers on this side—notably one at Newcastle, N. S. W.—who seem to understand the business, but the greater number appear altogether indifferent.

Legislative Enactments in Liberia.—Minister Smith, of Monrovia, under date of September 6, 1900, notes as evidence of recent progress in Liberia the enactment of a criminal code defining crime and fixing punishments, instead of depending upon the English and

American laws; the creation of a bureau of education; the reopening of the College of Liberia; the enactment of an election and registration law; the establishment of bonded warehouses in every port of entry, thus reconstructing the customs regulations of the Republic; the organization of the Grand Cape Mount region into a new territory, with Robertsport as the capital; and the creation of the Liberian Mining Association, with a capital stock of $300,000, with the right to employ the service of foreign individuals or companies who shall have the right, under the direction of the association, to enter lands acquired by the latter and prospect thereon. The president of the association is Mr. F. O. Thorne, of Cape Palmas. Mr. Smith adds that there is a strong sentiment in favor of the reopening of the ports of entry, closed for the last thirty-five years, to foreign trade.

Export Duties in Haiti.—Deputy Consul Battiste sends from Port au Prince, August 23, 1900, translation of a law passed by the Legislature, to go into effect October 1, placing an export duty on skins, gum guaiac, cattle, horses, asses, goats, and sheep. No export duty, adds Mr. Battiste, has been charged on hides, skins, and gum guaiac. Up to this time, the exportation of these articles has been steadily increasing. There was also no export duty on horses, cattle, etc. Last year, a law was presented before the Legislature imposing a heavy export duty on these animals, with the object of preventing shipments of cattle to Cuba (a large number having been shipped), but the law failed to pass. The present act imposes a light export duty until further measures be taken. The act provides:

ARTICLE 1. After the 1st of October next the following articles shall pay—

			Gourde.*
1.	Skins of goats, sheep, hogs, and horses	per pound...	0.01½
2.	Gum guaiac	per 100 pounds...	.50
3.	Oxen	each...	1.00
4.	Horses	do.....	.75
5.	Asses	do.....	.50
6.	Goats, sheep, hogs	do.....	.15

ART. 2. The surtaxes of 20 per cent and 10 per cent shall be imposed only on skins and gum guaiac.

Irrigation in Spain.—The consul at Coburg, Mr. Hughes, under date of August 29, 1900, reports:

Spain and France are using about the same area for growing cereals, and yet there is an enormous difference between the harvests

*96.5 cents.

yielded by these two countries. The scarcity of water in Spain accounts for this great difference in fertility. The rainfall is very unevenly distributed over the whole peninsula. In the Cantabrian region it will average as high as 2 meters (78.74 inches), while the central table-land and the southern districts often have hardly 75 centimeters (29.53 inches) in a year. There being sufficient river water in Spain, the Government is considering the establishment of a regular irrigating system. In the valleys of the rivers Ebro and Tajo, the watered country yields twelve times as much fruit as the dry. There are very large sections in Spain which need irrigation. The valley of the River Ebro, for instance, is provided with sufficient reservoirs and canals to allow of 236,000 acres being flooded, while in the valleys of the Guadalquivir, Quadiana, and Tajo rivers hardly 86,000 acres in all can be watered. By a royal decree dated May 11, 1900, the country has been divided into seven districts, in each of which the preparatory work has been commenced. The general plan for the construction of reservoirs and canals will probably be finished before the 31st of December, 1900, and will, it is hoped, become a law in the very near future.

Coal for Swedish Railways.—Consul-General Winslow, of Stockholm, under date of September 15, 1900, writes:

The Swedish railways, at the beginning of the year, did not purchase all the coal required by them, as was their custom. The extremely high prices induced them to buy only two-thirds of their necessary supply, and this fall they have entered the market again. Their purchases this spring were 264,000 tons, or about 70,000 tons less than last year. They have just accepted offers for 44,000 tons, and have decided to endeavor to get along with this quantity until the market declines. I give below the kinds, prices, and quantities:

For delivery at Stockholm, 4,000 tons West Hartley Main, 24s. 7½d. ($5.99).

For delivery at Gothenburg, 2,000 tons Micklefield, 21s. ($5.11); 4,000 tons Lassodi, Dysart Main, Bowhill, at 23s. ($5.60); 2,000 tons Bothal, Davisons, Hastings, Cowpen, Stavely, at 23s. 11d. ($5.82); 2,000 tons Aldwark Main at 25s. 3d. ($6.65).

For delivery at Malmo, 5,000 tons Lampton, Bothal & Co. at 24s. 3d. ($5.90).

The balance of the 44,000 tons was distributed at the small ports of Sweden, at prices corresponding with those above mentioned.

Refrigeration for Irish Butter.—Under date of September 17, 1900, Consul Halstead, of Birmingham, writes as follows:

Ice and Cold Storage, a London publication, in its September issue, announces that the chain of refrigeration for carrying butter between Ireland and England is now complete. Two splendid screw steamers, plying between Cork and Liverpool, owing to the enterprise of the City of Cork Steam Packing Company, Limited, are being equipped with refrigerator plants. To sum it all up, the Irish butter merchants have their stores fitted with refrigerating plants, their goods are shipped on refrigerated ships, and refrigerated stores await their arrival in England. The butter merchants, therefore, have the very best possible conditions under which to conduct their trade, and it will be their own fault if any continental country supplants them in the English market. It is interesting to note that identically the same system has been adopted by the Danish company importing butter into England, as also by Messrs. Thomas Wilson, Sons & Co. and Messrs. James Currie & Co. Thus England gets butter in first-rate order, firm and granular.

Germany's Imports of Butter.—Under date of September 24, 1900, Vice-Consul-General Hanauer, of Frankfort, says:

The consumption of imported butter is increasing in Germany, having amounted to 8,098.7 metric tons (of 2,204 pounds) during the first seven months of this year, against 5,784.1 tons for the same period of 1899. Of the above amount, Holland furnished 2,850.8 tons; Austria-Hungary, 2,476.3 tons; and Russia, 1,685.9 tons. Our butter is equal to the best produced, and I see no reason why the United States should not supply the market here with this commodity, as it does with lard, meat, and grain. The German agrarians and their sympathizers consider the present German tariff rate on imported butter—16 marks, or $3.80, per 100 kilograms, or 220.46 pounds—too low to protect the domestic producers.

Turf as Fuel.—Consul Hughes, of Coburg, September 6, 1900, sends the following:

At the present price of coal, says the Oestereichische Zeitschrift fuer Berg und Huettenwesen, the use of turf as fuel commands our special attention. Hitherto, all attempts to use turf as fuel and for the production of gas on a large scale have failed, for the reason that no means existed to dry it cheaply and quickly, nor could it be pressed into a small volume. Turf contains about 75 per cent of water, of which it loses very little in ordinary "drying." It is now

proposed to reduce the turf to pulp and destroy the fiber, after which the mass is easily dried, getting quite hard and furnishing an excellent charcoal. There is no reason why this turf coal should not be used for electric stoves and in the manufacture of carbide of calcium. In distilling the turf coal, paraffin, ammoniac, and a strong illuminating gas are found. In using it as a fuel for locomotives, a heat equal to that of 93.25 per cent of best coal has been attained, while it shows only 2.62 per cent of ashes, thus being equal in purity to high-grade Derbyshire coal. The cost of converting turf into coal has been calculated at 61 cents per ton.

Compressed Fuel.—Writing from Frankfort, August 9, 1900, Consul-General Guenther reports that, according to Kuhlow's German Trade Review and Exporter, of Berlin, a syndicate has been formed for the purpose of acquiring a patent for improvements in machinery for agglomerating fuel, and the right of granting licenses for the manufacture of artificial fuel. It is proposed, in addition to working machines, to sell such machines to colliery proprietors or others either for a fixed price or on royalty. The particular briquette proposed to be manufactured by the syndicate will be free from pitch or tar and, while comparatively smokeless, will give an abundant flame, and will be of a convenient size, averaging about 9,000 to the ton. The briquettes are clean to handle and are not easily fractured. The capital of the syndicate is £15,000 ($73,998), in £1 ($4.8665) shares, and the secretary's office is at 2, Clements Inn, London, W. C.

Export of German Laundry Goods.—Vice-Consul-General Hanauer reports from Frankfort, September 6, 1900:

The exportation of German laundry goods during the first half of this year reached 1,146 metric tons (of 2,204 pounds avoirdupois), valued at 8,943,000 marks ($2,128,434). Of this exportation, 26.3 per cent went to Holland, 23 per cent to Russia, 7.4 per cent to Denmark, 9.7 per cent to Switzerland, 6.3 per cent to England, 7.4 per cent to Sweden and Norway, and smaller amounts to Belgium and Australia. Our manufacture of shirts, collars, cuffs, etc., has reached a much higher state of perfection in cut and fit, in sewing, quality of goods, and in the starching and ironing process than any goods of foreign make, and the fact that we are not in the front as exporters in this important line of merchandise must again be attributed to our deficiency in mercantile ability and inexperience as salesmen. In Frankfort, men's white shirts made to order (not fine quality) cost from $2 to $3 apiece, and collars from $2.50 to $3 per dozen.

German Imports and Exports of Typewriters and Cash Registers.—Under date of August 27, 1900, Vice-Consul-General Hanauer, of Frankfort, reports that during the first six months of the present year Germany imported 299 metric cwts. (32,890 pounds) of typewriters and cash registers, of which 224 metric cwts. (26,640 pounds) were imported from the United States. The value of the total imports in this line was 1,500,000 marks ($357,000). During the same period, Germany exported typewriters and cash registers to the amount of 110 cwts. (12,100 pounds), of which 36 per cent went to Austria-Hungary and 10 per cent to Russia. In view of German imports from the United States, as shown, it seems strange that our manufacturers do not supply Austrian and Russian wants in these lines direct. If they do not make immediate efforts to do so, Austria and Russia will soon be flooded with German imitations of American typewriters and cash registers.

German Exports of Woolen Cloth to United States.—Consul Brundage, of Aix la Chapelle, under date of September 13, forwards the following comparative statement, taken from official records, of woolen cloth sent to the United States during the fiscal year 1896, under the tariff of 1894, and the fiscal year 1900, under the tariff of 1897, with revenues derived therefrom:

Exports for fiscal year ended June 30, 1896	$947,388.61
Exports for fiscal year ended June 30, 1900	527,911.23
Decrease under tariff of 1897	419,477.38
Revenue under tariff of 1897 (average 100 per cent)	527,477.38
Revenue under tariff of 1894 (average 45 per cent)	426,324.87
Increase under tariff of 1897	101,576.36

Brushes in Germany.—Vice-Consul-General Hanauer writes from Frankfort, August 27, 1900:

During the first six months of this year, the exports of German brushes and sieves (the last being insignificant in amount) reached 6,745,000 marks ($1,591,310), an increase of 9.2 per cent as compared with the exports for the same period of the year previous. Great Britain took 45.3 per cent of the exports; the United States, 6.9 per cent; Holland, 5.4 per cent; Argentina, 4.7 per cent; Switzerland, 4.3 per cent; Australia, 3.5 per cent; Austria-Hungary, 2.5 per cent. We are the greatest pork and bristle producers in the world, and can compete in price and quality of brushes with any country. After we have attained German mercantile experience we will win foreign markets in this line.

Electricity on German Farms.—Under date of August 23, 1900, Consul Hughes, of Coburg, says:

In this and neighboring parts of Germany, considerable attention is being paid to electrical appliances that can be used on the farm. Near Ochsenfurt, in Bavaria, a company composed of landowners and small farmers has been organized for the establishment of an electrical system for use on their farms and in villages. The power is to be generated by steam and water and the current to be distributed from a central station to the places at which it is wanted. Substations are to be established at given points, with the necessary apparatus for connecting with the farm or other machinery and also for lighting purposes in the houses, offices, roads, and village streets.

American Railroad Cars in Bavaria.—Vice and Acting Consul-General Hanauer, of Frankfort, writes, September 21, 1900, as follows:

The Bavarian Government, which owns the railroads and canals in that State, is having a fine American model car built at the Maschinenbau-Aktien Gesellschaft's works, in Nuremberg, for the express train. The woodwork and metal fixtures are furnished by the Pullman Company, which sent out one of its constructers to superintend the building of the car. This would seem to portend that the small, old-style cars of Germany are to be replaced by new ones after the commodious American pattern.

Oysters in Europe.—Vice-Consul-General Hanauer writes from Frankfort, September 22, 1900:

The French naval department has an exhibit in the Paris exposition giving a graphic view of the development of oyster cultivation in France. During 1879–1887, the yearly average production of French oysters amounted to 11,000,000 francs ($2,123,000), gradually increasing to 20,500,000 francs ($4,825,000) for the year 1898, when 15,500,000 French and 3,000,000 Portuguese oysters were sold along the French coasts. The bivalves are a great luxury in Europe, and so dear that only the wealthier classes can afford to eat them. In the city of Frankfort, small German or Dutch oysters in the shell cost from 60 to 72 cents (2½ to 3 marks) per dozen. Some resident Americans occasionally have a barrel of American oysters sent by their friends at home. The shipment of our oysters in cold storage would be practicable and afford profit.

German Private Claims against China.—Vice and Acting Consul-General Hanauer sends the following from Frankfort, September 11, 1900:

The German central bureau for the preparation of commercial treaties, which has had many inquiries from German firms and individuals who have suffered loss in China, has issued a circular which says:

All such claims should as soon as possible be sent in to the law division of the Imperial Ministry of Foreign Affairs and contain in writing the following points:

(1) A minute description of the location of the property (building, vessel, store, shop, or depot) when damage or loss occurred.

(2) Description of the actual occurrence of the destruction or damage.

(3) Statements of any parties who have been actual witnesses to No. 2.

(4) A careful estimate of the damage sustained and a detailed description of the property.

(5) Attestation of the above by the nearest German consulate in China.

As consuls in China have judicial powers, it is expected their attestation will be accepted by the Chinese authorities as proof of the correctness of the claims.

Musical Instruments in Germany.—Vice and Acting Consul-General Hanauer, at Frankfort, September 6, 1900, says:

In musical instruments, such as accordions, violins, guitars, zithers, trumpets, clarinets, etc. (not including pianos and organs or orchestrions), the exports from Germany to foreign countries during the first six months of this year amounted to 6,838,000 marks (about $1,750,000) in value, and exceeded those shipped abroad in the same period of 1899 by 12.7 per cent. Of these, England took 16 per cent; Austria-Hungary, 5.9 per cent; Russia, 5.7 per cent; France, 5.2 per cent; Australia, 3.3 per cent; Argentina, 2.2 per cent; Brazil, 1.9 per cent; etc.

Under date of September 4, Mr. Hanauer reports:

A German technical paper says that an attempt is being made to inundate the German market with American pianos, as has been done with melodeons, organs, and bicycles. A prominent maker of pianos who was at the Chicago exhibition predicted this result six years ago. The paper adds that the new German customs tariff should guard against this danger.

Consumption of Corn in Germany.—Under date of September 11, 1900, Vice and Acting Consul-General Hanauer, of Frankfort, writes as follows:

Indian corn does not mature when planted in Germany and other countries of central and northern Europe. Since 1891, when Europe

imported but 23,000,000 bushels of this grain from the United States, its use as cattle feed has steadily grown, and last year's imports from the United States alone aggregated 189,000,000 bushels. Of this, 45,250,000 bushels went to Germany, which country also imports small quantities from Turkey and Roumania. If our exporters were to make energetic efforts to educate the European people to the various uses of indian corn as a palatable and wholesome article for human food, our exports in corn meal and corn would attain astonishing proportions and become of great benefit to the poor working classes of Europe. A commencement might be made by introducing corn cakes, mush, hominy, corn bread, etc., in the "people's kitchens" of the large cities in Europe, where a cup of coffee can be had for a small sum—here in Frankfort for 5 pfennigs (1¼ cents).

Lumber Trade in Germany.—Consul Winter, of Annaberg, September 12, 1900, states that according to statistics of transportation on the German railways, lumber takes the fourth place in point of weight. The total traffic of all the railroads in the Empire for 1897 amounted to 217,523,247 tons. Of this total, 12,587,330 tons were lumber. This is of special interest, he adds, when we take into consideration that it does not include lumber transported on the different rivers of the Empire. The importance of this industry in Germany is shown by the fact that the various lumber establishments give employment to about 600,000 persons. The well-arranged system of forestry in the Empire supplies home markets with soft woods, but the imports of hard woods from abroad are steadily on the increase.

Vintage Prospects on the Rhine.—Consul Schumann sends the following from Mainz, September 12, 1900:

Without doubt the vineyards of the Rheingau, that section of the wine-producing country which lies between Lorch and Schierstein on the right bank of the Rhine and includes such well-known places as Assmannshausen, Lorch, Rüdesheim, Erbach, Geisenheim, Schloss Johannisberg, Rauenthal, etc., produce the finest Rhine wines of the country. This is due in a great measure to the southerly exposure of the vineyards, the vines thus getting the greatest possible amount of sunshine. The present condition of the vineyards of this section is, on the whole, very satisfactory. The vines and foilage are mostly healthy. As to the quality, a good middle wine is expected.

Consumption of Locomotive Smoke.—Under date of August 14, 1900, Vice-Consul Monaghan, of Chemnitz, reports that a member of the board of general directors of the Royal Saxon Railways has invented a new device for the consumption of smoke given off by locomotives. He claims that it is almost perfect, whether the locomotive is moving or standing still. Certain technical papers say that this device has been added to four locomotives in Chemnitz, and the engineers state that they are much pleased therewith. A locomotive using this new invention and being worked to its utmost capacity saves in one month 28,600 pounds of coal. To equip a locomotive with the device costs about $25. It can also be applied to stationary engines.

American Shoes in France.—Vice-Consul-General Hanauer writes from Frankfort, September 6, 1900:

Official statistics show that during the first six months of the present year the value of shoes exported from France was 7,995,780 francs ($1,543,186), against 9,157,590 francs ($1,767,415) last year. The importation of these articles into France is steadily increasing, in spite of the high import duty. In the first half year of 1900, there were imported into France 422,500 pairs of shoes; in the first half year of 1899, 304,500 pairs.

The United States is an important factor in this influx movement, American shoes valued at 37,000 francs ($7,141) having been imported into France during the month of May alone. Besides this, says the Shoe Market, a German technical journal, United States shoes are crowding those of French make out of the South American markets.

Permits for Travelers in Roumania.—The United States minister to Greece, Mr. Hardy, under date of September 11, 1900, writes that new regulations have been issued by the Government of Roumania, requiring aliens traveling or residing in that country to procure permits. These are issued only to those who have passports or other travel certificates, which should be visaed at the consulate or legation in Roumania. Permits are issued by the prefect of the district, except in Bucharest, Jassy, Craiova, and Galatz, where they are granted by the prefects of police. Foreigners arriving in the country, who intend to remain over eight days, must procure permits within twenty-four hours. These rules do not apply to those who have been naturalized in Roumania.

Petroleum in Roumania.—Consul Hughes writes from Coburg, August 23, 1900:

It is reported on high authority that the petroleum industries of Roumania have made great progress of late, and that, if transportation becomes cheaper and better, this country will be a formidable competitor of America and Russia—that is, if the capital necessary to build modern pipe lines is to be had. In 1895, the production was only 14,600 tons, and this increased to 134,180 tons in 1897–98. It is said that if facilities for the proper development of this industry can be obtained, the wells at Baicoi, Tintca, and Campina alone will produce 1,000 tons per day.

German Rubber Association.—Consul-General Guenther, of Frankfort, under date of August 23, 1900, writes:

The German Rubber Goods Manufacturers' Association held its annual meeting last month. Forty factories are represented in the association, of which sixteen employ under 100 hands, sixteen employ between 100 and 500, and eight employ over 500. All important German concerns are connected with the institution, which wields a powerful influence. The association has been consulted by the Government about the new tariffs to be arranged this year.

New Commercial Treaties of Italy.—Vice and Acting Consul-General Hanauer writes from Frankfort, September 22, 1900, as follows:

Following the example set by Germany and, of late, by Russia, Italy has organized a permanent board or commission of experts for the purpose of preparing for new trade treaties with foreign powers. Its first task is the examination of reports of Italian chambers of commerce. It will then consider the lately enacted increase in the Russian tariff, and prepare a reciprocity treaty with Germany.

Sulphate of Copper in Greece.—Vice-Consul Maximos, of Patras, under date of September 12, 1900, writes as follows:

Sulphate of copper will be largely used this year as a remedy against the disease peronosporos, which has lately caused so much damage to the currant and grape vineyards. The importation will exceed 5,000 tons. This article is imported from Great Britain and

Belgium. In my opinion, a great part of the sulphate of copper could be imported from the United States, and many importers here have asked me for the names of reputable American firms connected with this trade. I am most willing to furnish to our exporters any further information.

An American Circus in Germany.—The Department has received a report from Consul Brundage, dated September 21, 1900, describing the effect on the people of Aix la Chapelle of an American circus. The bill posting was a revelation in this line of work, both in magnitude and character; the way in which the tents were erected and the ground prepared astonished the people; and when the circus itself arrived, not a workman went to the factories; the spindles were idle all day. At every performance the tent was full, and the vague antipathy toward the United States has been turned into respect and awe; the people now say "anything is possible to Americans." Consul Brundage thinks that if an agent for American goods would follow in the wake of the circus, these would find a ready sale.

Molten Wood in France.—Vice-Consul-General Hanauer, of Frankfort, under date of September 29, 1900, says:

Molten wood is a new invention by Mr. De Gall, inspector of forests at Lemur, France. By means of dry distillation and high pressure, the escape of developing gases is prevented, thereby reducing the wood to a molten condition. After cooling off, the mass assumes the character of coal, yet without showing a trace of the organic structure of that mineral. This new body is hard, but can be shaped and polished at will; is impervious to water and acids, and is a perfect electrical nonconductor. Great results are expected from this new discovery.

Bananas in Costa Rica.—Minister Merry writes from San José, September 16, 1900:

On the 11th instant, a decree was promulgated by the Government of Costa Rica exempting bananas from any export duty for a period of ten years. Bananas now appear as second in the statement of exports and promise soon to exceed coffee, now first on the list, in value. Inasmuch as the profits of the banana trade inure mostly to the American "United Fruit Company," while coffee, the principal product receiving the attention of the citizens of Costa Rica, is grown at much more expense and pays a heavy export duty,

the decree creates much dissatisfaction. Export duties have a special importance here because under the Spanish American revenue system lands are not taxed, and the Government depends mostly on its customs for support.

Amnesty Act in Peru.—Under date of August 14, 1900, Minister Dudley transmits from Lima translation of an act under which all political prisoners at Lima have been released. The law reads:

ARTICLE 1. A general and absolute amnesty and pardon are granted all persons who either directly or indirectly may have been concerned in the political transgressions committed in the Republic previous to the promulgation of this law, whether their responsibility be proved or not.

ART. 2. The pardon and amnesty treated of in the foregoing article not only include the main punishments, but also the accessory ones; therefore, pardoned and amnestied persons will be exempt from the vigilance of the authorities and reinstalled in their rights to fill public offices and perform other political functions.

ART. 3. Immediately after the promulgation of this law, the judges and courts will dismiss all cases now pending for political offenses and will not be authorized to admit new cases, especially in reference to previous transgressions, and will immediately order the setting at liberty of all such persons and prisoners as are detained for like causes.

ART. 4. Peruvians who are abroad on account of political occurrences may return to the country whenever they think fit.

Steamship Service for West Coast of America.—Consul Greene reports from Antofagasta, August 17, 1900:

The Pacific Steam Navigation Company, a British firm, and the South American, a Chilean company, are contemplating an extension of their lines from Central America to San Francisco. This service, now being rendered by the Kosmos steamers, appears to be a success. The boats leave Valparaiso, call at the principal coast ports to Guayaquil, and go thence to Central American and North Pacific ports, not calling at Panama. They take and drop cargo on the trip north and generally return with full loads south. Formerly, Chilean wheat and flour had the coast trade as far as Guayaquil, but the Kosmos steamships, with their reasonable rates, now bring considerable lots, not only for coast supply, but for Bolivia, via Mollendo and this port. This last traffic has been favored by the suspension of Chilean railway service, owing to damage during the winter.

Hats in Paraguay.—Under date of August 12, 1900, Vice-Consul Harrison, of Asuncion, writes as follows:

Hats for men are imported into Paraguay from England, France, Buenos Ayres, and Montevideo. The selling prices are exorbitant,

twice as high as in the United States for the same class of goods. A derby which costs about $2 in the United States sells here for $4 and sometimes $5. Soft hats are very much in demand and sell at even a greater profit. The hats which have the largest sale are of good, but not of the best, quality.

Increase in Nicaraguan Postage Rate.—Consul Sorsby writes from San Juan del Norte, September 3, 1900:

On the 23d of August last, a decree was issued by the Government of Nicaragua relative to the increase in postage to countries in the Universal Postal Union, as follows: For each letter not weighing over 15 grams, 15 cents,* and 15 cents additional for every 15 grams or fraction thereof; for each single or double postal card, 5 cents; for newspapers of all classes, commercial documents, and samples of merchandise, for every package or article having a particular address, 5 cents for every 50 grams. The postage on commercial documents and samples of merchandise shall in no case be less than 15 cents for first class and 5 cents for second; for registration and return receipt, 10 cents each. This tariff, which went into effect on September 1, 1900, does not include "postal parcels," as these are subject to the conditions established by the postal conventions.

Issue of Treasury Bills in Nicaragua.—Vice-Consul Scott reports from San Juan del Norte, August 23, 1900, that the Government of Nicaragua has recently contracted with an engraving house in London, England, for a new issue of treasury bills. These are to be in denominations of 50 cents, $1, $5, $10, $25, and $50, and will be in different colors, with secret countermarks. The bills are to be exchanged for those outstanding, especially those in bad condition, as soon as practicable, and the latter are to be burned.

New Dry Docks in Vladivostock.—Consul Smith writes from Moscow, September 12, 1900, that in March last the Russian Government decided to construct new dry docks in Vladivostock, which will be capable of admitting ships of 700 feet in length. The excavations for these docks are now being started. Near the docks will be constructed two large metallic shipbuilding yards capable of turning out ships up to 3,000 tons. The old dock, the "Tsarevitch,"

*1 Nicaraguan cent is equal to 0.438 cent in United States currency.

is being rebuilt, and six new boilers have been ordered therefor. The work is superintended by Military Engineer Savitzky, with three assistants. The Government has also decided to construct and equip sixty new mechanical shops.

The Metric System in Russia.—Under date of September 29, 1900, Vice-Consul-General Hanauer, of Frankfort, writes that according to the St. Petersburg Gazette, the Russian Government has decided to adopt the metric standard of weights and measures, and the Ministry of Finance is now engaged in considering the time and manner of introducing this reform.

Licenses for Foreign Commercial Travelers in Russia.—Vice and Acting Consul-General Hanauer writes from Frankfort, September 11, 1900:

The bureau of the German-Russian Association, in Berlin, announces that according to a late decision of the Russian Imperial Council members or employees of foreign firms, when traveling in Russia for the purpose of purchasing goods, do not come under the trade-license act and need not pay any tax.

German Machinery Exposition in Russia.—Vice-Consul-General Hanauer, of Frankfort, under date of September 22, 1900, informs the Department that the Chamber of Commerce of Frankfort calls attention to a preparatory meeting of manufacturers of machinery to convene this autumn. This convention is to decide upon organizing a machine exposition in Russia. The chambers of commerce in Germany are requested to send delegates.

Hydraulic Presses in Madagascar.—Consul Gibbs writes from Tamatave, September 3, 1900:

Mr. Christian Bang, a reliable merchant of this city, requests names of manufacturers of small hydraulic presses for baling raffia and other fibers. I think there is a field here for these presses, if they are of the proper size. Correspondence with Mr. Bang may be conducted in the English language.

Tamatave Property Tax.—Consul Gibbs sends from Tamatave, September 2, 1900, copy of a decree changing the property tax on the tenantable value of houses at Tamatave.* The alteration is due to the situation in which Tamatave has been placed on account of the recent epidemics of the plague. The new decree, says Mr. Gibbs, is essentially the same as the former one, except that the tenantable value is reduced 25 per cent instead of one-sixth as formerly. The tax will be 5 per cent of this value.

London-Brussels Telephone Line.—Consul Roosevelt sends the following from Brussels, September 25, 1900:

After months of experiment, it has been decided to establish telephonic communication between England and Belgium, to be opened to the public about February 1, 1901. The Belgian line will start from La Panne, near the French frontier, and will be about 74 kilometers (45 miles) long. The tariff is fixed at 10 francs ($1.93) per three minutes.

Export of Ammunition from the Netherlands.—Minister Newel writes from The Hague, September 14, 1900, that, according to an order appearing in the Official Gazette of September 8, the exportation and transit of ammunition and gunpowder from and through the Netherlands are temporarily prohibited.

Stettin-Swinemünde Canal.—Consul Kehl, of Stettin, under date of September 21, 1900, reports that the water way from Swinemünde to Stettin, a distance of about 35 miles, has been dredged, and is now open to steamers drawing 22 feet.

Commercial University for Cologne.—Mr. Harris, consular agent at Eibenstock, September 1, 1900, reports that a commercial university similar to the one in Leipzig is shortly to be founded in Cologne, Dr. Von Mevissen, a resident of the city, having donated the necessary funds.

*See ADVANCE SHEETS No. 783 (July 18, 1900); CONSULAR REPORTS No. 240 (September, 1900).

Consular Reports Transmitted to Other Departments.—The following reports from consular officers (originals or copies) have been transmitted since the date of the last report to other Departments for publication or for other action thereon:

Consular officer reporting.	Date.	Subject.	Department to which referred.
L. L. Stang, Saigon	Aug. 16, 1900	Report of rice market	Department of Agriculture.
Do	Aug. 30, 1900	.....do	Do.
Do	Sept. 15, 1900	.....do	Do.
K. K. Kenneday, Para	Aug. 27, 1900	Colonization statistics	Bureau of the American Republics.
H. Nixon, Newcastle-on-Tyne.	Oct. 17, 1900	Dairy farming in 1900	Department of Agriculture.
M. H. Twitchell, Kingston, Ontario.	Oct. 31, 1900	Crop report	Do.

FOREIGN REPORTS AND PUBLICATIONS.

Commercial Conditions in Portugal.—The following is summarized from the Bollettino del Ministero degli Affari Esteri, Rome, June, 1900:

Portugal is naturally an agricultural and not a manufacturing country. Sixty per cent of her exports are agricultural, in spite of the lack of technical instruction and the ignorance of modern methods of agriculture. Scarcely 50 per cent of the Portuguese peasants know how to read and write, but they are laborious and possess a great natural aptitude for agriculture. In fertility of soil and salubrity of climate, Portugal compares favorably with other countries situated in the same latitude. Means of transportation have increased, and Portuguese products find a market all over the world; still, agriculture has not progressed in a parallel manner. Capital for investment in agriculture is hard to find, rates of exchange are high, and mortgages weigh upon the greater part of the agricultural lands.

England has a large share in the commerce of Portugal, wool and port wine being the principal objects of exchange. Port wine was originally made to suit the taste of Great Britain. Recently, there has arisen a demand for a good quality of claret.

Another industry which might, with proper care, become a source of wealth to the country is the manufacture of oil. Portuguese oil is ordinary in quality and badly made, having a disagreeable odor and taste. In 1898, Portugal exported 20,000 hectoliters (528,000 gallons), of which less than 1,000 hectoliters (26,400 gallons) was consumed in Europe, the remainder going to the Portuguese colonies.

The total value of Portuguese imports into her colonies in 1897 was valued at $9,703,268; in 1898, the amount was much greater. These colonies represent now an important factor in Portuguese revenues. The vast territory of Angola is open, and its production is increasing. Various companies are being organized to exploit the colony of Mozambique. The valuable island of St. Thomas exports great quantities of coffee and cocoa, while the Portuguese possessions in Guinea bid fair to be real sources of profit to the Government. The development of these colonies in the last two years is not only of great importance to Portugal, but to other countries as well, since great quantities of supplies for them are ordered from foreign markets, and the increasing exports from the colonies are seeking other countries. Already, some English and German merchants deal in Portuguese colonial exports and send representatives for that purpose to Portugal every year.

In the last eight years, many manufactories have been established in Portugal, principally of cotton, wool, linen, iron, felt, porcelain, and earthenware. In the majority of cases, the articles produced are of an inferior quality, with the prices but little lower than the current rates for foreign goods of higher grade, which have paid an entrance duty. Portugal has special commercial treaties with Spain, Russia, Denmark, Norway, and Belgium; but England, Germany, and France have the greatest commercial movement with the country.

German Trade with Bolivia.—An article in the Board of Trade Journal, London, August 2, 1900, states that the progress of German commerce in Bolivia has been such during the last twelve years that of the total European imports into that country, Germany claims five-eighths. The means by which this result has been obtained are set forth as follows: (1) The low cost of German articles offers great advantages to buyers who are not very particular as to quality, especially if they are, as in Bolivia, obliged by shortness of capital and by the diminished value of their silver coins to buy in the cheapest market; (2) after the war of 1870, emigration from Germany greatly increased. The majority of the emigrants were intelligent manufacturers and traders. Protected by their Government, they settled in the country, studied the needs of the towns where they were established, sent samples home of everything bought in the place, and in this manner captured the market. The German Government protects the commercial interests of its subjects, and assists and encourages good steamship services. On the Pacific, for example, Germany, by means of two very prosperous lines, competes favorably with English shipping. This special protection, however, is not at all apparent in Bolivia. No commercial treaty has been concluded with Bolivia, nor is Germany directly represented there. German consuls are simply agents who receive no remuneration for their services, and no official mission for studying the means of developing German commerce has been entrusted to any person there. There are at present in Bolivia twenty German firms of the first rank, only one English, or rather Anglo-Chilean, and only one French. There are, however, a few Italian and Spanish firms. A peculiarity of retail trade in Bolivia is that, owing to the great distance which often separates the mines and gum warehouses from the markets, the owners frequently carry on a retail business for the supply to their employees and families of almost every article of retail trade. The workman has a current account at these stores, where articles are supplied to him on credit at exorbitant prices, and in isolated regions employers charge their workmen fabulous sums for articles of prime necessity. Legislation has endeavored to check such abuses, but in vain.

Trade of Bagdad, 1899.—The Nachrichten für Handel und Industrie, Berlin, August 25, 1900, has the following:

The trade of Bagdad during the year 1899, in comparison with that of former years, has shown no essential change. The market for imported goods has not been, on the whole, unfavorable, although in many classes of goods, such as cloths, woolen fabrics, silks, and metals, buyers have held back their orders in expectation

of more favorable conditions. The nonarrival of new supplies is accordingly felt, and makes possible a rise for the stock on hand to very satisfactory prices.

The trade in so-called Orient cloths of Austrian origin, in consequence of the advance in prices, is much injured. Great Britain is benefited by receiving orders in cheap fabrics. In wool and half-wool fancy goods and articles, a satisfactory trade has been developed, in which German manufactories have an active share. Woolen hosiery and knit goods are almost exclusively imported from Germany. Great Britain rules the market completely in cotton goods, while France controls the import of silks. In plushes and figured velvets, however, Germany has driven French competition out of the market. In copper and round-end bar iron, Great Britain controls the trade. Steel is imported from Germany and Austria. Germany also has the trade in small ironware. Sole leather is imported from France; on the other hand, varnished calf, shagreen, sheep, and goat leather are exclusively products of German origin. In the paper trade, Germany is crowded out by cheap Austrian goods, as well as in glassware, glass beads, and glass buttons. In aniline and alizarin dyes, Germany has the largest share in the import, Switzerland being a feeble competitor. Gum lac and varnish are almost exclusively of English origin. The Netherlands and Belgium furnish candles. In furniture and bent woods, cigarette paper, and finished articles, Austria rules the market. France supplies the market of Bagdad with sugar. The small sugar loaf is the shape demanded by the inhabitants. This market is worth cultivating, since Bagdad supplies not only Mesopotamia, but also a greater part of Persia with sugar. The chief articles of export are wools, gallnuts, lambskins, dressed sheepskins, cowhides, kid leather, dates (exported principally to Syria and Egypt), and licorice, which is sent in quantities to North America. The export of pelican wings and eagle and hawk feathers has increased, while heron plumes are neglected.

The Uganda Railway, British East Africa.—The Board of Trade Journal, of London, notes in a recent edition that the Uganda Railway has been opened for public traffic for a distance of 362 miles, out of an estimated length of 583 miles. Earth works are ready for another 50 miles. Final surveys and sections have been completed for the whole length. Materials for permanent way are in Africa for 155 miles beyond those laid, and the early supply of materials for the balance required has been arranged. The whole number of locomotives estimated for has been delivered; also four-fifths of the rolling stock, the remainder of the latter being under supply. The greater part of the materials—also plant and tools—for the locomotive workshop have been delivered, and the buildings are in progress. The gross receipts from government and general traffic, quite apart from the traffic due to the carriage of stores, etc., for construction purposes already exceed $19.46 per mile per week and are steadily increasing as successive lengths are opened. When the railway is complete to the lake and properly equipped with steamers for continuing the traffic across the lake, a much larger business than now obtains may with confidence be expected.

Foot Wear and Paper in Madagascar.—The Board of Trade Journal, London, August 30, 1900, says:

A recently created want, which as yet importers have made no attempt to supply, is that of sandals suitable for the native porters traveling between the coast and the interior. Formerly, when the route to the coast followed native tracks and footpaths, no covering for the feet was necessary, but carriers now find that the new roads along which they travel necessitate more protection in this respect. Being unable to purchase sandals, the porters utilize the soles of cast-off boots, strips of leather, or canvas, which in most cases are quite unsuited to the purpose for which they are intended. A suitable sandal adapted to requirements of these carriers would very probably meet with an extensive sale. Paper is also an article for which, it is stated, there will be an increasing demand. Care should be taken that packages which can not be opened and rearranged at the port of discharge be made up in weights to which the native carriers are accustomed. One man will carry two packages of from 40 to 45 pounds each; but, if the package be sufficiently heavy to require two porters, the weight should not exceed 140 to 150 pounds. For packages exceeding 300 pounds, it is exceedingly difficult to obtain inland transport.

Textiles in the Sudan.—The following is taken from the Nachrichten für Handel und Industrie, Berlin, August 17, 1900:

According to the statistics of the last five years, the Sudan uses, on an average, $579,000 worth of textile goods, as the table below shows:

Year.	French origin.	Other.	Total.
1895	$248,861	$198,619	$447,480
1896	317,434	448,076	765,510
1897	208,324	235,717	444,041
1898	230,904	294,848	525,752
1899	317,088	420,605	737,693
Total	1,322,611	1,597,865	2,920,476

In the year 1899, there were imported:

Articles.	Pieces of 16 yards.	Value.
French Guinea cloth	55,936	$33,599
Indian Guinea cloth	430,860	271,816
English Guinea cloth	2,200	18,340
Belgian and Holland cloth	104,859	87,538
French cotton cloth	6,315	11,673
Other cotton cloth	211,314	314,727

Locks on the Somali Coast.—A recent edition of the Feuille de Renseignements de l'Office Colonial says:

The importation of locksmith wares to the French Somali Coast during the last six months of 1899 was 8,241 pounds, of which 3,763 pounds were of French origin.

1,483 pounds came from Egypt, and 2,995 pounds from Aden. Articles intended for European houses are such as are in use in Europe. The Arabs secure their houses with heavy bolts and strong padlocks made by native smiths. The Somali use chains with padlocks for the same purpose. The consumption of locks is limited, and a greater business in this article can not be created, as the building of houses is almost at a standstill.

Industries in Spain.—The British Trade Journal, London, June 1, 1900, quotes from a report from Gijon as follows:

Under the changed conditions in the West Indies, Cuban business men have partially realized their interests and now seek to invest in industrial enterprises at home, and, judging by the large amounts so subscribed, it is estimated that 45 per cent of the capital employed in the trade, commerce, and industry in the islands of Cuba and Porto Rico belonged to Asturians, who have in part sold out and transferred their capital to Spain. They are now the largest subscribers to the following new enterprises in Gijon (province of Asturias), namely, the Gijon Cotton Weaving Company, with a capital of 2,500,000 pesetas ($482,500); and the Gijon Sack Company, with a capital of 1,000,000 pesetas ($193,000).

INDEX.

VOL. LXIV—NOS. 240, 241, 242, AND 243.

Africa:
  Sahara Desert, trade, 146.
  Somali Coast, locks, 550.
Africa, British East, railway, Uganda, 549.
Africa, German Southwest, 98.
Africa, South:
  Cape Colony, locomotives and trucks, 530.
  Cape Town, cattle, diseased Argentine, 140.
  Cement, 502.
  Flour, United States, 530.
  Freight rates, 503.
  German commerce, 98.
  German goods, 449.
  Industrial conditions, 498.
  Meat, Australian vs. United States, 140.
  Posts, iron, demand, 318.
  Trade, 151.
  Trade conditions, 316.
Africa, West, clocks, 407.
Agricultural exports, Uruguay, 124.
Agricultural fair, Coburg, 190.
Agricultural implements, Asia Minor, 223.
Agricultural machinery, Turkey, 288.
Agricultural machines, Bulgaria, 144.
Agricultural resources, Siberia, 229.
Air, liquid, new use, 411.
Air ship, Switzerland, 204.
Alaska, 529.
  Mining, 234.
Albert, T. J. (consul, Brunswick), sugar industry, Germany, 450.
Albert, W. (vice-consul-general, Constantinople), telegraphic appliances, demand, Turkey, 476.
Alcohol plow locomobiles, Germany, 280.
Algeria, Algiers, port charges, 505.
Almonds, Spain, 392.
America, west coast, steamship service, 542.
Ammunition, export, Netherlands, 545.
Amnesty act, Peru, 542.
Anam, tea and coffee production, 100.
Antialcohol serum, France, 57.
Antofagasta, bank, new, 415.
Antwerp ivory market, 44, 367.
Apple crop, Canada, 398.
Argentine Republic:
  Automobiles, 421.
  Knitting industry, 295.
  Neutrality procedure, 263.
  Port charges, 302.
  Trade (1900), 519.
  Wheat export, 140.
Armor-plate manufacture, Germany, 193.
Arthur, C. H. (consular agent, Oaxaca), knitting industry, Oaxaca, 292.
Artificial cotton, alleged, 205.
Asia Minor, mines and agricultural implements, 223.
Asuncion, electric lights and cars, 517.
Attar-of-rose industry, Bulgaria, 421.
Atwell, W. P. (consul, Roubaix):
  Antialcohol serum, France, 57.
  Crop reports, France, 136.
  Shuttle, new automatic, France, 57.
  Spinning machine, new, France, 202.
  Textile congress, Berlin, 361.
  Wool crisis, France, 445.
Auction, quinine, Batavia, 87, 320.
Australia:
  Butter packing, 91.
  Cereal crops, Victoria, 405.
  Commercial methods, 272.
  Kerosene, United States, competition, 313.
  Paper, turf, 282.
  Sydney, showroom, 273.

Australian vs. United States meat, South Africa, 140.
Austria:
Export, timber, protests against, 454.
Lamps, 375.
Textile-industry enlargements, 205.
Vienna, museum, Spanish commercial, 415.
Watches, United States, wanted, 417.
Automobile mail coaches, Germany, 132.
Automobile regulations, Chemnitz, 406.
Automobile taxes, Spain, 407.
Automobiles:
Argentine Republic, 421.
Cologne, 458.
Avery, W. L. (consul, Belize), railway, British Honduras, 509.

Bagdad, trade (1899), 548.
Bananas, Costa Rica, 541.
Bangkok, museum of commerce, Japanese, 489.
Bank, new, Antofagasta, 415.
Bank, penny savings, Falkland Islands, 262.
Bankers' responsibilities, Germany, 462.
Barcelona, tramways, electric, 32.
Barlow, A. D. (consul-general, Mexico City), knitting industry, Mexico City, 291.
Barnes, C. E. (consul, Cologne), vehicles and automobiles, Cologne, 458.
Bartleman, R. M. (consul, Malaga):
Coffee production, world's, 48.
Spain, United States trade, extension, 35.
Batavia, quinine auction, 87, 320.
Battiste, A. (deputy consul, Port au Prince):
Export duties, Haiti, 531.
Fruit, export dues, Haiti, 308.
Railway, Haiti, 513.
Treaty, Franco-Haitian commercial, 309.
Bavaria, railway cars, United States, 536.
Beds, United States folding, opening, South Germany, 350.
Bedsteads, iron, Syria, 406.
Beet sugar:
Industry, France, 452.
Industry, Germany, 160.
Spain, 288.
Beets, sugar:
Acreage, Germany (1900), 133.
Waste, manure, 164.
Beirut, street roller and petroleum engines wanted, 223.
Belgium:
Antwerp ivory market, 44, 367.
Brussels-London telephone line, 545.
Coal, demand, 139.
Commercial union, 473.
Glass works, strike, 286.
Ocher, 167.
Poultry raising, 217.
Typesetting machines, 423.
Bell, G. W. (consul, Sydney), showroom, Sydney, 273.
Bellows, E. C. (consul-general, Yokohama):
Japanese consular fees, 486.
Rice crop, Japan, 488.
Berlin:
Exposition, fire preventing and extinguishing apparatus, 182, 380.
Strike, street-car, 23.
Textile congress, 361.
Berliner, S. (consul, Teneriffe):
Duties, customs, Canary Islands, 504.
Machinery, demand, Canary Islands, 137.
Tariff, Canary Islands, 101.
Tariff reductions, Canary Islands, 505.
Bills, treasury, issue, Nicaragua, 543.
Birkenfeld, lapidary industry, 10.
Birmingham, railway, electric, 341.
Boats, motor, Dead Sea, 222.
Boilers, Germany, preventing incrustation, 136.
Bolivia, trade, German, 548.
Bombay, electric works, 91.
Bordewich, H. (consul-general, Christiania), quarantine, Norway, 283.
Bowen, J. E. (consul, Port Stanley), savings bank, penny, Falkland Islands, 262.
Boxes, packing, Germany, 369.
Boyle, J. (consul, Liverpool):
Bricks, glass-works refuse, England, 456.
Ocher, Liverpool, 177.
Tariff, preferential, Canada, 331.
Typesetting machines, Liverpool, 429.

Bray, J. P. (consul-general, Melbourne):
Cereal crops, Victoria, 405.
Kerosene, United States, Australia, competition, 313.
Brazil:
Coal, United States, 139.
Farm life, 122.
Knitting industry, 295.
Manaos to British Guiana, railway, proposed, 514.
Market, porcelain and glass, 284.
Para, financial crisis, 413.
Para, flour mills, 283.
Para, steamship line to United States, 413.
Pernambuco, cable service, 306.
Tariff increase, proposed, 284.
Trade-marks, foreign, 139.
Breslau:
Coal, 139.
Labor, skilled, United States, 348.
Machinery, United States, 348.
Bricks, glass-works refuse, England, 456.
British Columbia:
Mining, 103.
Pulp mills, 142.
Smelting and mining, 525.
British Guiana:
Diamonds, 261.
Railway to Manaos, Brazil, proposed, 514.
British Honduras, railway, State, 509.
British imperial preferential trade, 331.
British India, loan, government, 144.
British trade, new scheme to push, 332.
Brodowski, E. Z. (consul, Solingen), strike and lockout, Solingen, 466.
Bruckhausen, iron works, 192.
Brundage, F. M. (consul, Aix la Chapelle):
Circus, United States, Germany, 541.
Coal, demand, Belgium, 139.
Woolen-cloth exports, Germany to United States, 535.
Brush, H. W. (consul, Niagara Falls), tariff, preferential, Canada, effects, 524.
Brushes, Germany, 538.
Brussels-London telephone line, 545.
Bryan, C. P. (minister, Petropolis):
Coal, United States, Brazil, 139.
Porcelain and glass market, Brazil, 284.
Trade-marks, foreign, Brazil, 139.
Buck, A. E. (minister, Tokyo):
Emigrants, Japanese, 417.
Railways, Japan, foreign shares, 142.
Buenos Ayres, immigrants, warning, 414.
Bulgaria:
Attar-of-rose industry, 421.
Machines, agricultural, 144.
Butter:
Imports, Germany, 533.
Market, Great Britain, 395.
Packing, Australia, 91.
Refrigeration, Ireland, 533.
Byington, A. H. (consul, Naples), shoe trade, British, 403.

Cable, new, Germany and United States, 137.
Cable service, Pernambuco, 306.
Calcutta, dredge, 323.
Camphor monopoly, Formosa, 84, 325.
Canada:
Apple crop, 398.
British Columbia, pulp mills, 142.
British Columbia, smelting and mining, 523.
Customs regulations, 102.
Dawson and Tanana, notes, 526.
Dawson City, ice plant, 526.
Dawson City, improvements, 527.
Dawson City, smallpox, 527.
Dawson, mining, 526.
Dawson, notes, 106, 400.
Klondike, mining, 234.
Koyukuk region, 106.
Ontario, tar-macadam pavement, 399.
Sault Ste. Marie, industries, 235.
Tanana mining district, 527.
Tanana, notes, 400.
Tariff, preferential, 331.
Tariff, preferential, effect, 524.
Vancouver, United States vessels, 142.
Yukon, conditions, 527.
Yukon, copper and quartz, 529.

Canals:
Elbe-Trave, 8.
Electric traction, Germany, 372.
Stettin-Swinemünde, 545.
Canary Islands:
Duties, customs, 504.
Machinery, demand, 137.
Tariff, 101.
Tariff reductions, 505.
Candles, exports, Germany to China, 81.
Canned meats, Germany, scarcity, 188.
Cantaloupes, Europe, 394.
Cape Colony, locomotives and trucks, 530.
Cape Town, cattle, diseased Argentine, 140.
Capital, mining, foreign, Russia, 480.
Cardiff, railway strike, 468.
Carriages, Hongkong, 327.
Cars:
Asuncion, 517.
Railway, United States, Bavaria, 536.
Street, Glasgow, 344.
Cartridges, electric, Italy, 133.
Case-making industry, Germany, 369.
Cash registers, imports and exports, Germany, 535.
Casks, old, demand, Great Britain, 137.
Cattle:
Argentine, diseased, Cape Town, 140.
Exports, Guatemala, 145.
Cellulith, 461.
Cement, South Africa, 502.
Ceramic exhibition, St. Petersburg, 481.
Cereal crops, Victoria, 405.
Certificates of origin, Turkey, 143, 279.
Ceylon, tea trade with England, 322.
Cheese:
Market, Great Britain, 395.
Pasteurized milk, Sweden, 134.
Chemical industry, Germany, 186.
Chemnitz, automobile regulations, 406.
Childs, H. R. (vice-consul, Zanzibar), economic conditions, Zanzibar, 314.
Chile:
Antofagasta, bank, new, 415.
Industries, 418.
Knitting industry, 296.
Mines, 418.
China:
Chungking, steamship service, 142.
German private claims, 537.
Imports, candles and soap from Germany, 81.
Kiangsu Province, conditions, 143.
Meats, tinned, 289.
Railway, Hankau-Pekin, 287.
Shanghai, foreigners, 228.
Shanghai, tobacco imports, 83.
Tea trade with England, 322.
Treaty of commerce with Mexico, 236.
China, Indo, economic conditions, 495.
Chinese school, London, 415.
Chinese trouble, effect, Germany, 448.
Chungking, steamship service, 142.
Cigarettes, Colombia, 145.
Circus, United States, Germany, 541.
Cities, Great Britain, electricity, 210.
Clayton, P. (ambassador, Mexico), treaty of commerce, Mexico and China, 236.
Cloak goods, market, Venezuela, 415.
Cloth, woolen, exports, Germany to United States, 535.
Clouds, dispersion by cannonade, France, 220.
Clover seed, United States, Germany, 46.
Coaches, automobile mail, Germany, 132.
Coal:
Breslau, 139.
Demand, Belgium, 139.
Demand, Netherlands, 138.
Freight rates, Prussia, 410.
Markets, Germany, changing conditions, 1.
Ohio, Germany, 353.
Railways, Sweden, 532.
United States, Brazil, 139.
United States, Russia, 416.
Coburg, fair, agricultural, 190.
Coffee:
Crop, Nicaragua, 113.
Export tax, Guatemala, 284.
Production, Anam, 100.
Production, Madagascar, 100.
Production, world's, 48.
Coinage and money, Spain, 474.
Cologne:
University, commercial, 545.
Vehicles and automobiles, 458.

Colombia:
Cigarettes, 145.
Export dues, 121, 244.
Commercial travelers:
Foreign, Roumania, 135.
Switzerland, 135.
Congress, textile, Berlin, 361.
Constantinople, sample room, German, 65.
Consular fees, Japan, 486.
Consular invoices, Salvador, 119, 405.
Consular reports transmitted to other Departments, 145, 286, 417, 546.
Contract, railway, Mexico, 241.
Copper:
Consumption, Germany, 21.
Sulphate, Greece, 540.
World's production, 21.
Copper and quartz, Yukon, 529.
Corn, consumption, Germany, 537.
Corset industry, German, protecting, 412.
Costa Rica:
Bananas, 541.
Financial measures, 306.
Port Limon, sanitary conditions, 285.
Cotton:
Artificial, alleged, 205.
Consumption, Germany, 447.
Growing, Salvador, 415.
Industry, Egypt, 96.
Rags, Russia, 206.
Covert, J. C. (consul, Lyons):
Beet-sugar industry, France, 452.
Economic conditions, Indo China, 495.
Fruits, France, 136.
Hail storms, France, dispersion by cannonade, 220.
Imports, Madagascar, 99.
Japan, commerce and industry, 484.
Labor conditions, France, 362.
Lumber market, France, 178.
Tea and coffee production, Anam and Madagascar, 100.
Crane regulations, Newcastle, N. S. W., 268.
Crop reports, France, 136.
Crops:
Apple, Canada, 398.
Cereal, Victoria, 405.
Crops—Continued.
Coffee, Nicaragua, 113.
Currant, Greece, 388.
Fruit, Silesia, 286.
Germany, 18.
Rice, Japan, 488.
Cuba, imports from Netherlands, 374.
Currant crop, Greece, 388.
Customs regulations:
Canada, 102.
Vladivostock, temporary, 78.

Danish West Indies, trade, 126.
Davidson, J. W. (consul, Tamsui):
Camphor monopoly, Formosa, 84, 325.
Railway improvements, Formosa, 224.
Davis, W. R. (consul, Alexandretta), mines and agricultural implements, Asia Minor, 223.
Dawson City:
Ice plant, 526.
Improvements, 527.
Mining, 520.
Notes, 106, 400, 526.
Smallpox, 527.
Dead Sea, motor boats, 222.
De Castro, H. (consul-general, Rome), typesetting machines, Rome, 430.
De Leon, P. M. (consul-general, Guayaquil), Manavi, or Panama, hat, 298.
Delivery of goods by street cars, Germany, 280.
Denmark, trade-marks, 216, 436.
Dentistry, Switzerland, 60.
Department stores, Germany, special taxation, 5.
Diamonds, British Guiana, 261.
Dickinson, C. M. (consul-general, Constantinople):
Railway material, demand, Syria, 447.
Tariff change, Turkey, 66.
War vessels, purchase, Turkey, 412.
Diederich, H. W. (consul, Bombay):
Shipbuilding, foreign (1900), 49.
Sugar-beet acreage, Germany (1900), 133.
Dillingham, F. (consul, Auckland), vegetable novelties, New Zealand, 497.
Docks, new dry, Vladivostock, 543.

Dog meat as food, Germany, 133.
Dogs, importation, Great Britain, 333.
Dominican goods, Haiti, duties, 145.
Donaldson, C. (consul, Managua), knitting industry, Nicaragua, 295.
Dredge, Calcutta, 323.
Dry docks, new, Vladivostock, 543.
DuBois, J. T. (consul-general, St. Gall):
  Air ship, Switzerland, 204.
  Insurance law, accident and military, Switzerland, 65.
Dudley, I. B. (minister, Lima):
  Amnesty act, Peru, 542.
  Trade and economic conditions, Peru, 518.
Dudley, L. E. (consul, Vancouver):
  Pulp mills, British Columbia, 142.
  Smelting and mining, British Columbia, 525.
  United States vessels, Vancouver, 142.
Dues, export:
  Colombia, 121, 244.
  Fruit, Haiti, 308.
Dutch exports to Cuba, 374.
Duties:
  Customs, Canary Islands, 504.
  Dominican goods, Haiti, 145.
  Excise, Russia, 478.
  Export, Haiti, 531.
  Leather goods, Russia, 69.

East Africa, British, railway, Uganda, 549.
Economic conditions:
  France, 200.
  Indo China, 495.
Ecuador, Manavi, or Panama, hat, 298.
Education, eastern Siberia, progress, 75.
Egg market, Great Britain, 395.
Egypt:
  Cotton industry, 96.
  Locomotives, United States, 95.
  Sugar trade (1899), 159.
Elbe-Trave Canal, 8.
Electric cartridges, Italy, 133.
Electric fans, England, 277.
Electric lights, Asuncion, 517.
Electric motors, small, Germany, 410.
Electric railway, Birmingham, 341.
Electric traction, German canals, 372.
Electric tramways:
  Barcelona, 32.
  Valencia, 33.
Electric underground railway, London, 213.
Electric works, Bombay, 91.
Electrical experts, British, Paris, 283.
Electrical goods, Turkey, 476.
Electrical power, Kiel, 280.
Electrical works, Germany, 279.
Electricity:
  British cities, 210.
  German farms, 536.
Ellsworth, L. T. (consul, Puerto Cabello):
  Imports and exports, Puerto Cabello, 244.
  Knitting industry, Venezuela, 298.
  Puerto Cabello, trade notes, 125.
Emigrants:
  Japanese, 417.
  United States to Buenos Ayres, warning, 414.
Engines, petroleum, wanted, Beirut, 223.
England:
  Birmingham, railway, electric, 341.
  Bricks, glass-works refuse, 456.
  Fans, electric, 277.
  Ice habit, growth, 215.
  London-Brussels telephone line, 545.
  London, fruit prices, 397.
  London, railway, underground, 340.
  London, school of Chinese, 415.
  London, steamship service, 336.
  London, tramways, 336.
  Ocher, 177.
  Railway, electric underground, 211.
  Shirt waists, United States, 346.
  Soda-water fountains, 277.
  Tea trade with India, Ceylon, and China, 322.
  Underwear, United States, 346.
Erdman, C. W. (consul, Breslau):
  Coal, Breslau, 139.
  Fruit crop, Silesia, 286.
  Iron, pig, United States, Germany, 354.
  Labor, skilled, and machinery, United States, Breslau, 348.
Excise duties, Russia, 478.
Exhibits, German, Paris, 410.

Export dues:
Colombia, 121, 244.
Fruit, Haiti, 308.
Export duties, Haiti, 531.
Export tax, coffee, Guatemala, 284.
Exporters, nail, hints, 209.
Exports:
Agricultural, Uruguay, 124.
Ammunition, Netherlands, 545.
Candles, Germany to China, 81.
Cash registers, Germany, 535.
Cattle, Guatemala, 145.
Germany to Sweden, 408.
Laundry goods, Germany, 534.
Manchester to United States, 208.
Netherlands to Cuba, 374.
Puerto Cabello, 244.
Steel rails, German, 409.
Sugar, Germany, 165.
Timber, Austria, protests against, 454.
Typewriters, Germany, 535.
United States, way to increase, 356.
Wheat, Argentine Republic, 140.
Woolen cloth, Germany to United States, 535.
Expositions:
Ceramic, St. Petersburg, 481.
Fire preventing and extinguishing apparatus, Berlin, 182, 380.
German machinery, Russia, 544.
Machinery, horsepower, Paris, 283.
Europe:
Flax and flaxseed, demand, 47.
Ocher, 167.
Oysters, 536.
Railway accommodations, central, 24.
Textile industries, depression, 359.
Threatened industrial crisis, 444.
Tomatoes and cantaloupes, 394.

Factories:
Stoneware, Germany, 19.
Tulle, Germany, 281.
Fair, agricultural, Coburg, 190.
Falkland Islands:
Penny savings bank, 262.
Tug, harbor, 414.
Fans, electric, England, 277.
Farm laborers' wages, Sweden, 73.
Farm life, Brazil, 122.
Farms, Germany, electricity, 536.
Fee, W. T. (consul, Bombay):
Electric works, Bombay, 91.
Loan, government, British India, 144.
Tea, India, 490.
Fees, consular, Japan, 486.
Fertilizers, Japan, 227.
Filberts, Spain, 392.
Finances, Haiti, 141.
Financial crisis, Para, 413.
Financial measures, Costa Rica, 306.
Finch, W. R. (minister, Montevideo), railways, Uruguay, 507.
Finland, commerce, 148.
Fire preventing and extinguishing apparatus, exposition, Berlin, 182, 380.
Firearms, Siam, demand, 285.
Fishing, pearl, Venezuela, 414.
Flags, German rules as to showing, by vessels, 410.
Flax and flaxseed, demand, Europe, 47.
Fleming, R. (consul, Edinburgh):
Tweed trade, Scotland, crisis, 446.
United States trade, Scotland, 45.
Flour:
Japan, 82.
Malta, 389.
United States, South Africa, 530.
Flour mills, Para, 283.
Foods, chemical, Germany, 22.
Formosa:
Camphor monopoly, 84, 325.
Railway improvements, 224.
France:
Antialcohol serum, 57.
Beet-sugar industry, 452.
Cellulith, 461.
Crop reports, 136.
Economic conditions, 200.
Fruits, 136.
Hail storms, dispersion by cannonade, 220.
Hay, price, Southwest, 135.
Labor conditions, 362.
Lobsters, Canadian, 286.
Lumber market, 178.
Marseilles, lamps, 377.
Ocher, 168.
Olives and olive oil, 221.
Paris exposition, electrical experts, British, 283.
Paris exposition, exhibits, German, 410.

France—Continued.
Paris exposition, machinery, horse-power, 283.
Paris exposition, shoe experts, German, 132.
Shoes, United States, 539.
Shuttle, automatic, new, 57.
Silk industry, 51.
Spinning machine, new, 202.
Steamers, new lines to United States, 378.
Steamship line, report, 199.
Tools, measuring, market, 354.
Treaty, commercial, with Haiti, 309.
Typesetting machines, 424.
Wood, molten, 541.
Wood pulp, 286.
Wool crisis, 445.
Freeman, J. C. (consul, Copenhagen), trade-marks, Denmark, 436.
Freight rates:
Coal, Prussia, 410.
Foreign trade, 27.
South Africa, 503.
Fruit:
Crop, Silesia, 286.
Export dues, Haiti, 308.
France, 136.
Market, Siberia, 483.
Prices, London, 397.
United States, Germany, 463.
Utilization, Germany, 13.
Fuel:
Compressed, Germany, 534.
Patent, manufacture, Wales, 469.
Peat, Russia, 411.
Turf, Germany, 533.
Furniss, H. W. (consul, Bahia), knitting industry, Bahia, 295.

Geary, T. R. (vice and acting consul, Malaga), automobile taxes, Spain, 407.
German exhibits, Paris exposition, 410.
German machinery exposition, Russia, 544.
German sample room, Constantinople, 65.
German shoe exports, Paris exposition, 132.
German sugar, Japan, 322.

Germany:
Air, liquid, new use, 411.
Armor-plate manufacture, 193.
Bankers' responsibilities, 462.
Bavaria, railway cars, United States, 536.
Beet-sugar industry, 160.
Beets, sugar, acreage (1900), 133.
Berlin exposition, fire preventing and extinguishing apparatus, 182, 380.
Berlin, strike, street-car, 23.
Berlin, textile congress, 361.
Birkenfeld, lapidary industry, 10.
Boilers, preventing incrustation, 136.
Breslau, coal, 139.
Breslau, labor, skilled, United States, 348.
Breslau, machinery, United States, 348.
Bruckhausen, iron works, 192.
Brushes, 535.
Butter imports, 533.
Canals, electric traction, 372.
Candles and soap, exports to China, 81.
Case-making industry, 369.
Cash registers, exports, 535.
Cash registers, imports, 535.
Chemical foods, 22.
Chemical industry, 186.
Chemnitz, automobile regulations, 406.
Chinese troubles, effect, 448.
Circus, United States, 541.
Claims, private, China, 537.
Clover seed, United States, 46.
Coaches, automobile mail, 132.
Coal markets, changing conditions, 1.
Coal, Ohio, 353.
Coburg, fair, agricultural, 190.
Cologne, university, commercial, 545.
Cologne, vehicles and automobiles, 458.
Copper, consumption, 21.
Corn, consumption, 537.
Corset industry, protecting, 412.
Cotton consumption, 447.
Crops, 18.
Department stores, special taxation, 5.

Germany—Continued.
Dog meat as food, 133.
Electric motors, small, 410.
Electrical works, 279.
Exports, steel rails, 409.
Exports to Sweden, 408.
Farms, electricity, 536.
Flags, rules as to showing, by vessels, 410.
Fruit, utilization, 13.
Fruits, United States, 463.
Fuel, compressed, 534.
Glass industry, 409.
Glass, new, 131.
Halle, railways, street, municipal, 24.
Horse meat as food, 133.
Instruments, musical, 537.
Insurance, life (1899), 281.
Iron markets, changing conditions, 1.
Iron, United States pig, 354.
Kiel, electrical power, 280.
Krupp Iron Works, 356.
Lamps, prizes, 144.
Lard, United States, 282.
Laundry goods, export, 534.
Law against grain speculation, working, 438.
Leipzig City Pawn Shop and Savings Institution, 381.
Leipzig, milk inspection, 385.
Lumber trade, 538.
Lumber, United States, 180.
Mannheim, soap trade, 132.
Manual training, 192.
Mask industry, 371.
Meats, canned, scarcity, 188.
Metallurgical production, 194.
Mining production, 194.
Ocher, 175.
Oatmeal, 190.
Overproduction, 447.
Pipes, welding, new process, 9.
Plow locomobiles, alcohol, 280.
Prussia, coal, freight rates, 410.
Prussia, income-tax evasions, 460.
Rhine, vintage prospects, 538.
Rubber association, 540.
Rubber trade, 368.
Salt prices, 286.
Sausages, 387.
Scissors and knives, trade, 408.
Shoe trade, Americanizing, 12.
Germany—Continued.
Shoes, United States, 351.
Silver-mounted ware a menace to health, 374.
Smoke, locomotive, consumption, 539.
Solingen, strike and lockout, 466.
South African commerce, 98.
Stettin-Swinemünde Canal, 545.
Stoneware factory, 19.
Street cars, delivery of goods, 280.
Strikes, 362.
Sugar exportation, 165.
Sugar industry, 450.
Tariff changes, proposed, 459.
Telegraphing and telephoning simultaneously over one line, 435.
Telegraphone patent rights, 409.
Telephonograph, 11.
Timekeepers, United States factory, wanted, 417.
Tool trust, 131.
Trade, Bolivian, 548.
Trade-marks, 437.
Tulle factories, 281.
Turf, fuel, 533.
Typesetting machines, 425.
Typewriters, exports, 535.
Typewriters, imports, 535.
United States trade, 464.
Weather bureau, 416.
Woolen-cloth exports to United States, 535.
Germany and United States, new cable, 137.
Germany, South, beds, United States folding, opening, 350.
Gibbs, M. W. (consul, Tamatave):
Hydraulic presses, Madagascar, 544.
Tax, property, Madagascar, 143.
Tax, Tamatave property, 545.
Trunks and stationery, demand, Madagascar, 417.
Gifford, G. (consul, Basel), pavements, Switzerland, 59.
Glasgow, street cars, 344.
Glass:
Industry, Germany, 409.
Market, Brazil, 284.
New, Germany, 131.
Works, Belgium, strike, 236.
Glass-works refuse, bricks, England, 456.

Goding, F. W. (consul, Newcastle):
Commercial methods, Australia, 272.
Crane regulations, Newcastle, N. S. W., 268.
Gold:
Discoveries, Japan, 420.
Russia, 282.
Goodnow, J. (consul-general, Shanghai):
Foreigners, Shanghai, 228.
Kiangsu Province, conditions, 143.
Tobacco, imports, Shanghai, 83.
Grain speculation, Germany, law against, working, 438.
Great Britain:
Butter market, 395.
Casks, old, demand, 137.
Cheese market, 395.
Cities, electricity, 210.
Dogs, importation, 333.
Egg market, 395.
Foreign trade, efforts to extend, 456.
Iron trade, critical situation, 358.
New scheme to push trade, 332.
Ocher, 177.
Shoe trade, 403.
Shoes, United States, 214.
Soda-water fountains, 457.
Typesetting machines, 429.
Greece:
Currant crop, 388.
Lumber market, 179.
Railway construction, 419.
Sulphate of copper, 540.
Greene, C. C. (consul, Antofagasta):
Bank, new, Antofagasta, 415.
Knitting industry, Chile, 296.
Steamship service, west coast of America, 542.
Greener, R. T. (commercial agent, Vladivostock):
Customs regulations, Vladivostock, temporary, 78.
Educational progress, eastern Siberia, 75.
Fruit market, Siberia, 483.
Mineral and agricultural resources, Siberia, 229.
Grinnell, W. F. (consul, Manchester), exports, Manchester to United States, 208.
Griscom, L. C. (secretary of legation, Constantinople):
Certificates of origin, Turkey, 143, 279.
Electrical goods, Turkey, 476.
Grout, J. H. (consul, Valletta), wheat and flour, Malta, 389.
Guenther, R. (consul-general, Frankfort):
Air, liquid, new use, 411.
Alcohol plow locomobiles, Germany, 280.
Cellulith, 461.
Chemical industry, Germany, 186.
Coaches, German automobile mail, 132.
Coal, United States, Russia, 416.
Electric motors, small, Germany, 416.
Electric traction, German canals, 372.
Electrical power, Kiel, 280.
Electrical works, Germany, 279.
Fuel, compressed, 534.
German life insurance (1899), 281.
Horse and dog meat as food, Germany, 133.
Income-tax evasions, Prussia, 460.
Iron works, Bruckhausen, 192.
Krupp Iron Works, 356.
Lard, United States, Germany, 282.
Machinery, horsepower, Paris exposition, 283.
Manual training, Germany, 192.
Mining and metallurgical production, Germany, 194.
Pipes, welding, new process, Germany, 9.
Rubber association, Germany, 540.
Russian and United States petroleum in world's market, 478.
Russian business methods, 219.
Sausages, Germany, 387.
Scissors and knives, trade, Germany, 408.
Strike, street-car, Berlin, 23.
Strikes, Germany, 362.
Telegraphing and telephoning simultaneously over one line, 435.
Tool trust, Germany, 131.
Trade conditions, South Africa, 316.

Guenther, R.—Continued.
Typesetting machines, Frankfort, 426.
United States-Swiss commercial alliance proposed, 58.
Weather bureau, Germany, 416.
Guatemala:
Cattle exports, 145.
Coffee, export tax, 284.
Mining concessions, 108.
Railway, northern, 401.
Railway, washout, 285.
Transportation and trade, 508.
Gudger, H. A. (consul-general, Panama), monopolies, Panama, 243.
Guiana, British:
Diamonds, 261.
Railway to Manaos, Brazil, proposed, 514.
Gunsaulus, E. N. (consul, Pernambuco), cable service, Pernambuco, 306.
Gutta-percha, supply, 137.

Hail storms, France, dispersion by cannonade, 221.
Haiti:
Dominican goods, duties, 145.
Export dues, fruit, 308.
Export duties, 531.
Financial measures, 141.
Licenses, business, 145.
Lighting cities, 144.
Minerals, 128.
Railways, 128, 513.
Treaty, commercial, with France, 309.
Halle, railways, street, municipal, 24.
Halstead, M. (consul, Birmingham):
British efforts to extend foreign trade, 456.
British trade, new scheme to push, 332.
Butter, cheese, and egg market, Great Britain, 395.
Butter, refrigeration, Ireland, 533.
Clocks, West Africa, 407.
Electric underground railway, London, 211.
Electrical experts, British, Paris exposition, 283.
Electricity, British cities, 210.
Fans, electric, and soda-water fountains, England, 277.
Halstead, M.—Continued.
Fruit prices, London, 397.
Ice habit, growth, England, 215.
Iron trade, Great Britain, critical situation, 358.
Meat, Australian vs. United States, South Africa, 140.
Orris-root trust, 404.
Pearl growing, Japan, 285.
Philippine Islands, trade (1899), 88.
Railway, electric, Birmingham, 341.
Russian spinners, profits, 479.
Shirt waists and underwear, United States, England, 346.
Shoes, United States, Great Britain, 214.
Soda-water fountains, Great Britain, 457.
Steamship service, London: Tramways, 336.
Hanabergh, A. T. (acting consul, Cartagena), export dues, Colombia, 121.
Hanauer, S. W. (vice-consul-general, Frankfort):
Bankers' responsibilities, Germany, 462.
Brushes, Germany, 535.
Butter imports, Germany, 533.
Chinese trouble, effect, Germany, 448.
Corn, consumption, Germany, 537.
Exports, steel rails, German, 409.
Exports, United States, way to increase, 356.
Exposition, German machinery, Russia, 544.
German private claims, China, 537.
Gold and platinum, Russia, 282.
Instruments, musical, Germany, 537.
Lamps, prizes, Germany, 144.
Laundry goods, export, Germany, 534.
Licenses, foreign commercial travelers, Russia, 544.
Metric system, Russia, 544.
Mining capital, foreign, Russia, 480.
Oysters, Europe, 536.
Railway cars, United States, Bavaria, 536.
Shoes, United States, France, 539.
Shoes, United States vs. German, Switzerland, 403.

Hanauer, S. W.—Continued.
Threatened industrial crisis, Europe, 444.
Tomatoes and cantaloupes, Europe, 394.
Treaties, new commercial, Italy, 540.
Typewriters and cash registers, imports and exports, Germany, 535.
Wheat, Russian, complaints, 411.
Wood, molten, France, 541.
Hankau-Pekin Railway, 287.
Harbor tug, Falkland Islands, 414.
Hardware, Syria, 406.
Hardy, A. S. (minister, Greece), travelers' permits, Roumania, 539.
Hardy, J. R. (vice-consul-general, Mexico), steamship line, new, Mexico and United States, 413.
Harness, Hongkong, 327.
Harris, A. C. (minister, Vienna), passports, United States, Hungary, 134.
Harris, E. L. (consular agent, Eibenstock):
Exhibits, German, Paris, 410.
German goods, South Africa, 449.
German Southwest Africa, 98.
German sugar, Japan, 322.
Lumber, United States, Germany, 180.
Overproduction, Germany, 447.
School, commercial, Tiflis, 138.
United States products, Siberia, 74.
United States trade, Germany, 464.
University, commercial, Cologne, 545.
Harris, H. W. (consul, Mannheim):
Coal, demand, Netherlands, 138.
Soap trade, Mannheim, 132.
Stoneware factory, Germany, 19.
Harrison, W. (vice-consul, Asuncion):
Electric lights and cars, Asuncion, 517.
Hats, Paraguay, 542.
Hats:
Manavi, or Panama, 298.
Mexico, 301.
Paraguay, 542.
Hay, price, Southwest France, 135.
Headen, W. (consular agent, Puebla), knitting industry, Puebla, 293.
Herdliska, C. V. (secretary of legation, Vienna), museum, Spanish commercial, Vienna, 415.
Heydecker, W. A. (acting consul-general, St. Petersburg), cotton rags, Russia, 206.
Hill, F. D. (consul, Amsterdam):
Elbe-Trave Canal, 8.
Ocher, Netherlands, 176.
Holloway, W. R. (consul-general, St. Petersburg):
Leather goods, Russia, duties, 69.
Liquor traffic, Russia, 70.
Railway, Trans-Siberian, 328.
Russian excise duties, 478.
Honduras:
Knitting industry, 294.
Railways and roads, new, 287.
Honduras, British, railway, 509.
Hongkong, carriages and harness, 327.
Horse meat as food, Germany, 133.
Horsepower, machinery, Paris exposition, 283.
Hossfeld, F. W. (consul, Trieste):
Glove industry, Austrian, 453.
Lamps, Austria, 375.
Timber export, Austria, protests against, 454.
Hughes, O. J. D. (consul, Coburg):
Case-making industry, Germany, 369.
Cartridges, electric, Italy, 133.
Delivery of goods by street cars, Germany, 280.
Electricity, German farms, 536.
Fair, agricultural, Coburg, 190.
Flour, United States, South Africa, 530.
Foods, chemical, Germany, 22.
German tariff changes, proposed, 459.
Glass, new, Germany, 131.
Gutta-percha, supply, 137.
Imports, Sweden from Germany, 408.
Irrigation, Spain, 531.
Machines, agricultural, Bulgaria, 144.
Mask industry, Germany, 371.
Petroleum, Roumania, 540.
Rubber trade, Germany, 368, 369.
Smyrna, trade, 138.
Steel industry, Swiss, 416.
Turf, fuel, Germany, 533.

Hungary, passports, United States, 134.
Hunter, W. G. (minister, Guatemala), cattle exports, Guatemala, 145.
Hydraulic presses, Madagascar, 544.

Ice habit, growth, England, 215.
Ice plant, Dawson City, 526.
Implements, agricultural, Asia Minor, 223.
Importation, dogs, Great Britain, 333.
Imports:
  Butter, Germany, 533.
  Candles and soap, China from Germany, 81.
  Cash registers, Germany, 535.
  Cuba from Netherlands, 374.
  Madagascar, 99.
  Musical instruments, Philippine Islands, 420.
  Puerto Cabello, 244.
  Sweden from Germany, 408.
  Tobacco, Shanghai, 83.
  Typewriters, Germany, 535.
  United States from Manchester, 208.
  Woolen cloth, United States from Germany, 535.
Income-tax evasions, Prussia, 460.
India:
  Bombay, electric works, 91.
  Calcutta, dredge, 323.
  Loan, government, 144.
  Tea, 490.
  Tea trade with England, 322.
Indo China, economic conditions, 495.
Ingersoll, J. C. (consul, Copenhagen), trade-marks, Denmark, 216.
Instruments, musical:
  Germany, 537.
  Philippines, 143, 420.
Insurance law, accident and military, Switzerland, 65.
Insurance, life, Germany (1899), 281.
Insurance rates and freight, foreign trade, 27.
Invoices, consular, Salvador, 119, 405.
Ireland, butter, refrigeration, 533.
Iron:
  Bedsteads, Syria, 406.
  Markets, Germany, changing conditions, 1.
  Trade, Great Britain, critical situation, 358.
  United States pig, Germany, 354.
Iron works:
  Bruckhausen, 192.
  Krupp, 356.
Irrigation, Spain, 531.
Italy:
  Cartridges, electric, 133.
  Orris-root trust, 404.
  Tariff edict, 144.
  Treaties, new commercial, 540.
  Typesetting machines, 430.
Ivory market, Antwerp, 44, 367.

Jackson, J. B. (secretary of embassy, Berlin):
  Coal, freight rates, Prussia, 410.
  Flags, German rules as to showing, by vessels, 410.
Japan:
  Commerce and industry, 484.
  Consular fees, 486.
  Emigrants, 417.
  Flour, 82.
  Gold discoveries, 420.
  Mackerel and fertilizers, 227.
  Museum of commerce, Bangkok, 489.
  Pearl growing, 285.
  Railways, foreign shares, 142.
  Rice crop, 488.
  Sugar, German, 322.
Jarvis, W. (consul, Milan), typesetting machines, Milan, 430.
Java, Batavia, quinine auction, 87, 320.
Jenkins, J. (consul, San Salvador):
  Consular invoices, Salvador, 119, 405.
  Cotton growing, Salvador, statistical bureau, 415.
  Knitting industry, Salvador, 295.
  Tariff additions, Salvador, 121.
Johnson, F. S. S. (commercial agent, Stanbridge):
  Apple crop, Canada, 398.
  Customs regulations, Canada, 102.
Johnston, B. (consul, Utilla), knitting industry, Honduras, 294.
Jones, F. S. (secretary of legation Buenos Ayres):
  Neutrality procedure, Argentine Republic, 263.
  Port charges, Argentine Republic, 302.

Kaiser, L. (consul, Mazatlan), knitting industry, Mazatlan, 294.
Kehl, J. E. (consul, Stettin), Stettin-Swinemünde Canal, 545.
Kenneday, K. K. (consul, Para):
Flour mills, Para, 283.
Steamship service with Para: Financial crisis, 413.
Kerosene:
Martinique, 521.
United States, Australia, competition, 313.
Kiangsu Province, conditions, 143.
Kidder, D. S. (consul, Algiers), port charges, Algiers, 505.
Kiel, electrical power, 280.
Kindrick, C. W. (consul, Ciudad Juarez), railway extensions, Mexico, projected, 117.
King, H. (consul-general, Bangkok):
Japanese museum of commerce, Bangkok, 489.
Railway materials and firearms, demand, Siam, 285.
Klondike, mining, 234.
Knitting industry:
Argentine Republic, 295.
Brazil, 295.
Chile, 296.
Honduras, 294.
Mexico, 291.
Nicaragua, 295.
Paraguay, 297.
Salvador, 295.
Uruguay, 297.
Venezuela, 298.
Knives, trade, Germany, 408.
Koyukuk region, 106.
Krause, J. (vice-consul, Pernambuco), knitting industry, Pernambuco, 296.
Krupp Iron Works, 356.

Labor conditions, France, 362.
Labor, skilled, United States, Breslau, 348.
Laborers, farm, wages, Sweden, 73.
Lamps:
Austria, 375.
Marseilles, 377.
Prizes, Germany, 144.
Lapidary industry, Birkenfeld, 10.
Lard, United States, Germany, 282.
Laundry goods, export, Germany, 534.
Law, accident and military insurance, Switzerland, 65.
Law against grain speculation, Germany, working, 438.
Lawrence, W. H. (acting consul, Santos), knitting industry, Santos, 296.
Lay, J. G. (consul-general, Barcelona), tramways, electric, Barcelona, 32.
Leather goods, Russia, duties, 69.
Legislative enactments, Liberia, 530.
Leipzig:
City pawn shop and savings institution, 381.
Milk inspection, 385.
Levant, United States goods, 416.
Liberia, legislative enactments, 530.
Licenses:
Business, Haiti, 145.
Foreign commercial travelers, Russia, 544.
Lieberknecht, A. (consul, Zurich), sample room, United States, Zurich, 349.
Liefeld, E. T. (consul, Freiburg), railway accommodations, central Europe, 24.
Life insurance, Germany (1899), 281.
Light, E. B. (consular agent, Guadalajara), knitting industry, Guadalajara, 292.
Lighting cities, Haiti, 144.
Lincoln, G. F. (consul-general, Antwerp):
Ivory market, Antwerp, 44, 367.
Ocher, Antwerp, 167.
Poultry raising, Belgium, 217.
Liquid air, new use, 411.
Liquor traffic, Russia, 70.
Listoe, S. (consul, Rotterdam):
Dutch exports to Cuba, 374.
Lumber market, Rotterdam, 44.
Loan, government, British India, 144.
Lobsters, Canadian, France, 286.
Locks, Somali Coast, 550.
Locomobiles, alcohol plow, Germany, 280.
Locomotive smoke, consumption, Germany, 539.
Locomotives:
Cape Colony, 530.
United States, Egypt, 95.
London:
Fruit prices, 397.
Railway, underground, 340.
Steamship service, 336.
Tramways, 336.

London-Brussels telephone line, 545.
Long, J. G. (consul-general, Cairo):
Cotton industry, Egypt, 96.
Locomotives, United States, Egypt, 95.
Loomis, F. B. (minister, Caracas), stamp law, Venezuela, 258.
Lord, W. P. (minister, Buenos Ayres), Argentine Republic, trade (1900), 519.
Lumber market:
France, 178.
Greece, 179.
Rotterdam, 44.
Lumber trade, Germany, 538.
Lumber, United States, Germany, 180.
Lyon, S. S. (consul, Hiogo), mackerel and fertilizers, Japan, 227.

Machinery:
Agricultural, Turkey, 288.
Demand, Canary Islands, 137.
German, exposition, Russia, 544.
Martinique, 521.
Paris exposition, horsepower, 283.
Tanning, Spain, 34.
United States, Breslau, 348.
Machines:
Agricultural, Bulgaria, 144.
New spinning, France, 202.
Typesetting, Belgium, 423.
Typesetting, France, 424.
Typesetting, Germany, 425.
Typesetting, Great Britain, 429.
Typesetting, Italy, 430.
Mackerel, Japan, 227.
McCook, J. C. (consul, Dawson City):
Dawson and Tanana, notes, 400, 526.
Dawson, notes, Koyukuk region, 106.
Mining, Alaska and Klondike, 234.
Yukon, conditions, 527.
McCreery, F. R. (secretary of legation, Mexico), railway contract, Mexico, 241.
McGinley, D. E. (consul, Athens, lumber market, Greece, 179.
McLean, J. (vice-consul-general, Yokohama), flour, Japan, 82.
McNally, J. C. (consul-general, Guatemala):
Coffee, export tax, Guatemala, 284.
Mining concessions, Guatemala, 108.
McNally, J. C.—Continued.
Railway, Northern, Guatemala, 401.
Transportation and trade, Guatemala, 508.
Madagascar:
Hydraulic presses, 544.
Imports, 99.
Paper and sandals, 550.
Stationery, demand, 417.
Tamatave property tax, 545.
Tax, property, 143.
Tea and coffee production, 100.
Trunks, demand, 417.
Magelssen, W. C. (vice-consul, Beirut), street roller and petroleum engines wanted, Beirut, 223.
Mahin, F. W. (consul, Reichenberg):
Cotton, artificial, alleged, 205.
Paper, turf, 282.
Textile industries, Europe, depression, 359.
Textile-industry enlargements, Austria, 205.
Mail coaches, German automobile, 132.
Malacca, tea cultivation, 320.
Malta, wheat and flour, 389.
Manaos, Brazil, railway to British Guiana, proposed, 514.
Manavi, or Panama, hat, 298.
Manchester exports to United States, 208.
Mannheim, soap trade, 132.
Manual training, Germany, 192.
Markets:
Brazil, porcelain and glass, 284.
Butter, cheese, and eggs, Great Britain, 395.
Cloak goods, Venezuela, 415.
Coal, Germany, changing conditions, 1.
Fruit, Siberia, 483.
Iron, Germany, changing conditions, 1.
Ivory, Antwerp, 44, 367.
Lumber, France, 178.
Lumber, Greece, 179.
Lumber, Rotterdam, 44.
Marseilles, lamps, 377.
Martinique, machinery and kerosene, 521.
Mask industry, Germany, 371.
Mason, F. H. (consul-general, Berlin):
Coal, Ohio, Germany, 353.
Crops, Germany, 18.

Mason, F. H.—Continued.
Department stores, Germany, special taxation, 5.
Exposition, fire preventing and extinguishing apparatus, Berlin, 380.
Flax and flaxseed, demand, Europe, 47.
Fruits, United States, Germany, 463.
Iron and coal markets, Germany, changing conditions, 1.
Law against grain speculation, Germany, working, 438.
Ocher, Berlin, 175.
Shoe trade, Germany, Americanizing, 12.
Tanning machinery, Spain, 34.
Trade-marks, Germany, 437.
Typesetting machines, Berlin, 425.
Maximos, D. E. (vice-consul, Patras):
Currant crop, Greece, 388.
Sulphate of copper, Greece, 540.
Mayer, D. (consul, Buenos Ayres), knitting industry, Argentine Republic, 295.
Meat:
Australian vs. United States, South Africa, 140.
Dog, as food, Germany, 133.
Horse, food, Germany, 133.
Meats:
Canned, Germany, scarcity, 188.
Tinned, China, 289.
Merry, W. L. (minister, San José):
Bananas, Costa Rica, 541.
Financial measures, Costa Rica, 306.
Sanitary conditions, Port Limon, 285.
Metallurgical production, Germany, 194.
Metric system, Russia, 544.
Mexico:
Hats, 301.
Knitting industry, 291.
New manufactories, 421.
Railway contract, 241.
Railway extensions, projected, 117.
Steamship line to United States, new, 413.
Treaty of commerce with China, 236.
Warehouses, general, 150.
Milk inspection, Leipzig, 385.
Mills, flour, Para, 283.
Mills, pulp, British Columbia, 142.
Mills, W. W. (consul, Chihuahua), knitting industry, Chihuahua, 293.
Mineral resources, Siberia, 229.
Minerals, Haiti, 128.
Mines:
Asia Minor, 223.
Chile, 418.
Mining:
Alaska, 234.
British Columbia, 103, 525.
Dawson, 526.
Klondike, 234.
Nicaragua, 116.
Mining capital, foreign, Russia, 480.
Mining concessions, Guatemala, 108.
Mining district, Tanana, 527.
Mining production, Germany, 194.
Molten wood, France, 541.
Monaghan, J. F. (vice-consul, Chemnitz):
Automobile regulations, Chemnitz, 406.
Commercial travelers, foreign, Roumania, 135.
Copper production, world's: Consumption, Germany, 21.
Elbe-Trave Canal, 9.
Locomotive smoke, consumption, Germany, 539.
Mining and metallurgical production, Germany, 194.
Money and coinage, Spain, 474.
Monopolies, Panama, 243.
Monopoly, camphor, Formosa, 84, 325.
Montevideo, port works, proposed, 302, 506.
Morgan, H. H. (consul, Aarau):
Commercial travelers, Switzerland, 135.
Dentistry, Switzerland, 60.
Moscow, waterworks, 135.
Moseley, R. A., jr. (consul-general, Singapore):
Singapore, communication with United States, 412.
Tea cultivation, Malacca, 320.
Motor boats, Dead Sea, 222.
Motors, small electric, Germany, 410.
Moulton, G. H. (consul, Demerara):
Diamonds, British Guiana, 261.
Railway, British Guiana to Manaos, Brazil, proposed, 514.

Municipal pawn shop and savings institution, Leipzig, 381.
Municipal street railways, Halle, 24.
Murphy, G. H. (vice-consul, Magdeburg):
Beet-sugar industry, Germany, 160.
Butter packing, Australia, 91.
Fruit, utilization, Germany, 13.
Railways, street, municipal, Halle, 24.
Sugar-beet waste as manure, 164.
Sugar exports, Germany, 165.
Sugar, German, Japan, 322.
Sugar trade, Egypt (1899), 159.
Museum of commerce, Japanese, Bangkok, 489.
Museum, Spanish commercial, Vienna, 415.
Musical instruments:
Germany, 537.
Import, Philippine Islands, 420.
Philippines, 143.

Nail exporters, hints, 209.
Nelson, V. E. (consul, Bergen), cheese, pasteurized milk, Sweden, 134.
Netherlands:
Coal, demand, 138.
Elbe-Trave Canal, 8.
Export, ammunition, 545.
Exports to Cuba, 374.
Ocher, 176.
Rotterdam, lumber market, 44.
Neutrality procedure, Argentine Republic, 263.
New South Wales, Newcastle crane regulations, 268.
New Zealand, vegetable novelties, 497.
Newel, S. (minister, The Hague), ammunition, export, Netherlands, 545.
Nicaragua:
Coffee crop, 113.
Commerce, 108.
Knitting industry, 295.
Mining, 116.
Postage rate, increase, 543.
State railway, proposed, 114.
Tariff, rebate, 521.
Treasury bills, issue, 543.
Norway, quarantine, 283.
Oatmeal, Germany, 190.
Ocher:
Belgium, 167.
England, 177.
Europe, 167.
France, 168.
Germany, 175.
Great Britain, 177.
Netherlands, 176.
Scotland, 177.
Ohio coal, Germany, 353.
Oil, olive, France, 221.
Olives, France, 221.
Ontario, tar-macadam pavement, 399.
Orris-root trust, Italy, 404.
Osborne, W. M. (consul-general, London), railway, underground, London, 340.
Oysters, Europe, 536.

Packing boxes, Germany, 369.
Palestine, Dead Sea, motor boats, 222.
Panama, monopolies, 243.
Panama, or Manavi, hat, 298.
Paper:
Madagascar, 550.
Turf, 282.
Para:
Financial crisis, 413.
Flour mills, 283.
Steamship line to United States, 413.
Paraguay:
Asuncion, electric lights and cars, 517.
Hats, 542.
Knitting industry, 297.
Public works, 123.
Yerba-mate cultivation, 307.
Paris exposition:
Electrical experts, British, 283.
Exhibits, German, 410.
Machinery, horsepower, 283.
Shoe experts, German, 132.
Passports, United States, Hungary, 134.
Pasteurized milk, cheese, Sweden, 134.
Patent fuel, manufacture, Wales, 469.
Patent rights, telegraphone, 409.
Pavement, tar-macadam, Ontario, 399.
Pavements, Switzerland, 59.
Pawn shop, municipal, Leipzig, 381.
Pearl fishing, Venezuela, 414.

Pearl growing, Japan, 285.
Peat, fuel, Russia, 411.
Peirce, H. H. D. (chargé d'affaires, St. Petersburg), tariff increase, Russia, 329.
Permits, travelers, Roumania, 539.
Pernambuco, cable service, 306.
Peru:
  Amnesty act, 542.
  Trade and economic conditions, 518.
Petroleum:
  Engines wanted, Beirut, 223.
  Roumania, 540.
  Russian and United States, world's market, 478.
Philippine Islands:
  Musical instruments, 143.
  Musical instruments, import, 420.
  Trade (1899), 88.
Phillips, D. T. (consul, Cardiff):
  Patent fuel, manufacture, Wales, 469.
  Railway strike, Cardiff, 468.
Pig iron, United States, Germany, 354.
Pipes, welding, new process, Germany, 9.
Pitcairn, H. (consul, Hamburg):
  Canned meats, Germany, scarcity, 188.
  Oatmeal, Germany, 190.
  Ocher, Hamburg, 175.
Platinum, Russia, 282.
Plow locomobiles, alcohol, Germany, 280.
Plumacher, E. H. (consul, Maracaibo):
  Knitting industry, Venezuela, 298.
  Pearl fishing, Venezuela, 414.
Poison, silver-mounted ware, Germany, 374.
Porcelain, market, Brazil, 284.
Port charges:
  Algiers, 505.
  Argentine Republic, 302.
Port Limon, sanitary conditions, 285.
Port works, Montevideo, 302, 506.
Portugal, commercial conditions, 547.
Postage rate, Nicaragua, increase, 543.
Poultry raising, Belgium, 217.
Powell, W. F. (minister, Port au Prince):
  Duties, Dominican goods, Haiti, 145.
  Haiti, financial measures, 141.
  Licenses, business, Haiti, 145.
  Lighting cities, Haiti, 144.
  Minerals, Haiti: Railways, 128.
Preferential tariff, Canada, 331.
Preferential trade, British imperial, 331.
Price, hay, Southwest France, 135.
Prices, fruit, London, 397.
Prizes, Nobel, for scientific discoveries, 431.
Prussia:
  Coal, freight rates, 410.
  Elbe-Trave Canal, 8.
  Income-tax evasions, 460.
Puerto Cabello:
  Imports and exports, 244.
  Trade notes, 125.
Pulp mills, British Columbia, 142.

Quarantine, Norway, 283.
Quinine auction, Batavia, 320.

Rags, cotton, Russia, 206.
Rails, German steel, exports, 409.
Railway cars, Bavaria, 536.
Railway construction, Greece, 419.
Railway contract, Mexico, 241.
Railway extensions, Mexico, projected, 117.
Railway improvements, Formosa, 224.
Railway materials, demand:
  Siam, 285.
  Syria, 477.
Railway strike, Cardiff, 468.
Railways:
  British Guiana to Manaos, Brazil, proposed, 514.
  British Honduras, 509.
  Central Europe, accommodations, 24.
  Guatemala, washout, 285.
  Haiti, 128, 513.
  Hankau-Pekin, 287.
  Japan, foreign shares, 142.
  New, Honduras, 287.
  Northern, Guatemala, 401.
  Scotland, traveling rates, 27.
  Spain, 196.
  Street, municipal, Halle, 24.
  Sweden, coal, 532.
  Uganda, British East Africa, 549.
  Underground, London, 340.
  Uruguay, 507.
Railways, electric:
  Birmingham, 341.
  Underground, London, 211.

Railways, State:
Nicaragua, proposed, 114.
Trans-Siberian, 328.
Rairden, B. S. (vice-consul, Batavia), quinine auction, Batavia, 87, 320.
Raphall, A. M. (consular agent, Aguas Calientes), knitting industry, Aguas Calientes, 292.
Reed, D. T. (vice-consul, Madrid):
Money and coinage, Spain, 474.
Railways, Spain, 196.
Time, method of reckoning, Spain, 407.
Refrigeration, butter, Ireland, 533.
Rhine, vintage prospects, 538.
Rice crop, Japan, 488.
Roads, new, Honduras, 287.
Roosevelt, G. W. (consul, Brussels):
Commercial union, Belgium, 473.
Glass works, Belgium, strike, 286.
Ocher, Brussels, 167.
Telephone line, London-Brussels, 545.
Typesetting machines, Brussels, 423.
Rotterdam, lumber market, 44.
Roumania:
Commercial travelers, foreign, 135.
Petroleum, 540.
Travelers' permits, 539.
Rowen, J. E. (consul, Port Stanley), harbor tug, Falkland Islands, 414.
Rubber association, Germany, 540.
Rubber trade, Germany, 368.
Ruffin, J. N. (consul, Asuncion):
Knitting industry, Paraguay, 297.
Public works, Paraguay, 123.
Yerba-mate cultivation, Costa Rica, 307.
Russell, W. W. (secretary of legation, Caracas), tariff decrees, Venezuela, 522.
Russia:
Business methods, 219.
Coal, United States, 416.
Cotton rags, 206.
Excise duties, 478.
Exposition, German machinery, 544.
Finland, commerce, 148.
Gold and platinum, 282.
Leather goods, duties, 69.
Liquor traffic, 70.
Metric system, 544.
Mining capital, foreign, 480.
Russia—Continued.
Moscow, waterworks, 135.
Peat, fuel, 411.
St. Petersburg, ceramic exhibition, 481.
Spinners, profits, 479.
Tariff increase, 329.
Tiflis, school, commercial, 138.
Travelers, foreign commercial, licenses, 544.
Vladivostock, notes, 147.
Russian and United States petroleum, world's market, 478.
Russian wheat, complaints, Germany, 411.

Sahara Desert, trade, 146.
St. Petersburg, ceramic exhibition, 481.
Salt, prices, Germany, 286.
Salvador:
Consular invoices, 119, 405.
Cotton growing, 415.
Knitting industry, 295.
Statistical bureau, 415.
Tariff additions, 121.
Sample rooms:
German, Constantinople, 65.
United States, Zurich, 349.
Sandals, Madagascar, 550.
Sanitary conditions, Port Limon, 285.
Sault Ste. Marie, industries, 235.
Sausages, Germany, 387.
Savings bank, penny, Falkland Islands, 262.
Savings institution, municipal, Leipzig, 381.
Schools:
Chinese, London, 415.
Commercial, Tiflis, 138.
Schumann, W. (consul, Mainz):
Clover seed, United States, Germany, 46.
Exports, candles and soap, Germany to China, 81.
Iron bedsteads and hardware, Syria, 406.
Lapidary industry, Birkenfeld, 10.
Nail exporters, hints, 209.
Sample room, Germany, Constantinople, 65.
Silver-mounted ware, Germany, a menace to health, 374.
Vintage prospects, Rhine, 538.

Scissors, trade, Germany, 408.
Scotland:
Glasgow, street cars, 344.
Ocher, 177.
Railways, traveling rates, 27.
Tweed trade, crisis, 446.
United States trade, 45.
Scott, F. P. (vice-consul, San Juan del Norte):
Tariff, Nicaraguan, rebate, 521.
Treasury bills, issue, Nicaragua, 543.
Seed, clover, United States, Germany, 46.
Seeger, E. (consul-general, Rio de Janeiro):
Emigrants, United States to Buenos Ayres, warning, 414.
Farm life, Brazil, 122.
Tariff increase, Brazil, proposed, 284.
Serum, antialcohol, France, 57.
Shanghai:
Foreigners, 228.
Tobacco imports, 83.
Shaw, W. I. (consul, Barranquilla):
Cigarettes, Colombia, 145.
Export dues, Colombia, 244.
Shepard, J. M. (consul, Hamilton), tarmacadam pavement, Ontario, 399.
Ship, air, Switzerland, 204.
Shipbuilding, foreign (1900), 49.
Shirt waists, United States, England, 346.
Shoe experts, German, Paris, 132.
Shoe trade:
British, 403.
Germany, Americanizing, 12.
Shoes, United States:
France, 539.
Germany, 351.
Great Britain, 214.
versus German, Switzerland, 403.
Showroom, Sydney, 273.
Shuttle, new automatic, France, 57.
Siam:
Bangkok, museum of commerce, Japanese, 489.
Railway materials and firearms, demand, 285.
Siberia:
Educational progress, eastern, 75.
Fruit market, 483.
Industrial development, 419.
Siberia—Continued.
Mineral and agricultural resources, 229.
Temporary customs regulations at Vladivostock, 78.
Trans-Siberian Railway, 328.
United States products, 74.
Vladivostock, customs regulations, temporary, 78.
Vladivostock, dry docks, new, 543.
Silesia, fruit crop, 286.
Silk industry, France, 51.
Silver-mounted ware, Germany, a menace to health, 374.
Singapore, communication with United States, 412.
Skinner, R. P. (consul, Marseilles):
Lamps, Marseilles, 377.
Ocher, Marseilles, 172.
Olives and olive oil, France, 221.
Typesetting machines, Marseilles, 424.
Smallpox, Dawson City, 527.
Smelting, British Columbia, 525.
Smith, A. E. (consul, Victoria), mining, British Columbia, 103.
Smith, O. L. W. (minister, Monrovia), legislative enactments, Liberia, 530.
Smith, T. (consul, Moscow):
Dry docks, new, Vladivostock, 543.
Waterworks, Moscow, 135.
Smithers, G. F. (consul, Chungking), steamship service, Chungking, 142.
Smoke, locomotive, consumption, Germany, 539.
Smyrna, trade, 138.
Snyder, C. P. (consul, Ciudad Porfirio Diaz), hats, Mexico, 301.
Soap, exports, Germany to China, 81.
Soap trade, Mannheim, 132.
Soda-water fountains:
England, 277.
Great Britain, 457.
Solingen, strike and lockout, 466.
Somali Coast, locks, 550.
Sorsby, W. B. (consul, San Juan del Norte):
Nicaragua, commerce, 108.
Postage rate, Nicaragua, increase, 543.
South Africa:
Cape Colony, locomotives and trucks, 530.

South Africa—Continued.
Cape Town, cattle, diseased Argentine, 140.
Cement, 502.
Flour, United States, 530.
Freight rates, 503.
German commerce, 98.
German goods, 449.
Industrial conditions, 498.
Meat, Australian vs. United States, 140.
Posts, iron, demand, 318.
Trade, 151.
Trade conditions, 316.
Southwest Africa, German, 98.
Spain:
Almonds and filberts, 392.
Automobile taxes, 407.
Barcelona, tramways, electrical, 32.
Beet sugar, 288.
Commercial conditions, 149.
Industries, 551.
Irrigation, 531.
Money and coinage, 474.
Railways, 196.
Tanning machinery, 34.
Taxes, transportation, 29.
Time, method of reckoning, 407.
United States trade, extension, 35.
Valencia, tramways, electric, 33.
Valencia, wheat, United States, 34.
Spinners, Russia, profits, 479.
Spinning machine, new, France, 202.
Stamp law, Venezuela, 258.
State railways:
Nicaragua, proposed, 114.
Trans-Siberian, 328.
Stationery, demand, Madagascar, 417.
Statistical bureau, Salvador, 415.
Steamers, new lines, between France and United States, 378.
Steamship line, French, report, 199.
Steamship lines:
Mexico and United States, new, 413.
Para and United States, 413.
Steamship service:
Chungking, 142.
London, 336.
West coast, American, 542.
Steel industry, Switzerland, 416.
Steel production, world's, 195.
Steel rails, German, export, 409.
Stettin-Swinemünde Canal, 545.
Stoneware factory, Germany, 19.
Storer, B. (minister, Madrid), taxes, transportation, Spain, 29.
Stores, department, Germany, special taxation, 5.
Storms, hail, France, dispersion by cannonade, 220.
Stowe, J. G. (consul-general, Cape Town):
Cattle, Argentine, diseased, Cape Town, 140.
Cement, South Africa, 502.
Freight rates, South Africa, 503.
Industrial conditions, South Africa, 498.
Locomotives and trucks, Cape Colony, 530.
Posts, iron, demand, South Africa, 318.
Trade, South Africa, 151.
Straits Settlements, Singapore, communication with United States, 412.
Street-car strike, Berlin, 23.
Street cars:
Delivery of goods, Germany, 280.
Glasgow, 344.
Street railways, municipal, Halle, 24.
Street roller wanted, Beirut, 223.
Strike and lockout, Solingen, 466.
Strikes:
Germany, 362.
Railway, Cardiff, 468.
Street car, Berlin, 23.
Sudan, textiles, 550.
Sugar:
Beet, industry, France, 452.
Beet, industry, Germany, 160.
Beet, Spain, 288.
Exports, Germany, 165.
German, Japan, 322.
Industry, Germany, 450.
Trade, Egypt (1899), 159.
Sugar beets:
Acreage, Germany (1900), 133.
Waste, manure, 164.
Sulphate of copper, Greece, 540.
Summers, M. (vice-consul-general, Barcelona), almonds and filberts, Spain, 392.
Swalm, A. W. (consul, Montevideo):
Agricultural exports, Uruguay, 124.
Knitting industry, Uruguay, 297.
Port works, Montevideo, 302.

Swalm, A. W.—Continued.
Port works, Montevideo, proposed, 506.
Tariff bill, Uruguay, 141.
Sweden:
Cheese, pasteurized milk, 134.
Imports from Germany, 408.
Railways, coal, 532.
Wages, farm laborers, 73.
Sweden and Norway, Nobel prizes for scientific discoveries, 431.
Switzerland:
Air ship, 204.
Commercial alliance with United States, proposed, 58.
Commercial travelers, 135.
Dentistry, 60.
Law, accident and military insurance, 65.
Pavements, 59.
Shoes, United States vs. German, 403.
Steel industry, 416.
Zurich, sample room, United States, 349.
Sydney, showroom, 273.
Syria:
Bagdad, trade (1899), 548.
Beirut, street roller and petroleum engines wanted, 223.
Iron bedsteads and hardware, 406.
Railway material, demand, 477.
Smyrna, trade, 138.

Tamatave property tax, 545.
Tanana:
Mining district, 527.
Notes, 400, 526.
Tanning machinery, Spain, 34.
Tariff:
Additions, Salvador, 121.
Bill, Uruguay, 141.
Canary Islands, 101.
Change, Turkey, 66.
Changes, Germany, proposed, 459.
Decrees, Venezuela, 522.
Edict, Italy, 144.
Increase, Brazil, proposed, 284.
Increase, Russia, 329.
Nicaraguan, rebate, 521.
Preferential, Canada, 331.
Preferential, Canada, effect, 524.
Reductions, Canary Islands, 505.
Tar-macadam pavement, Ontario, 399.
Taxes:
Automobile, Spain, 407.
Coffee, export, Guatemala, 284.
Income, evasions, Prussia, 460.
Property, Madagascar, 143.
Tamatave property, 545.
Transportation, Spain, 29.
Taylor, S. M. (consul, Glasgow):
Ocher, Glasgow, 177.
Railways, Scotland, traveling rates, 27.
Street cars, Glasgow, 344.
Tea:
Cultivation, Malacca, 320.
India, 490.
Production, Anam, 100.
Production, Madagascar, 100.
Telegraphic appliances, demand, Turkey, 476.
Telegraphing and telephoning simultaneously over one line, 435.
Telegraphone patent rights, 409.
Telephone line, London-Brussels, 545.
Telephoning and telegraphing simultaneously over one line, 435.
Telephonograph, 11.
Testart, A. (vice-consul, Martinique):
Argentine Republic, trade (1900), 519.
Machinery and kerosene, Martinique, 521.
Textile congress, Berlin, 361.
Textile industries, Europe, depression, 359.
Textile-industry enlargements, Austria, 205.
Textiles, Sudan, 550.
Thackara, A. M. (consul, Havre):
Ocher, Havre, 168.
Steamers, new lines, between France and United States, 378.
Steamship line, French, report, 199.
Tools, measuring, market, France, 354.
Tiflis, school, commercial, 138.
Timber export, Austria, protests against, 454.
Time, method of reckoning, Spain, 407.
Timekeepers, United States factory, Germany, wanted, 417.
Tinned meats, China, 289.
Tobacco imports, Shanghai, 83.

Tomatoes, Europe, 394.
Tool trust, Germany, 131.
Tools, measuring, market, France, 354.
Tourgée, A. W. (consul, Bordeaux):
  Economic conditions, France, 202.
  Hay, price, Southwest France, 135.
  Typesetting machines, Bordeaux, 425.
Trade-marks:
  Denmark, 216, 436.
  Foreign, Brazil, 139.
  Germany, 437.
Tramways, electric:
  Barcelona, 32.
  Valencia, 33.
Tramways, London, 336.
Transportation:
  Guatemala, 508.
  Taxes, Spain, 29.
Trans-Siberian Railway, 328.
Travelers, foreign commercial, licenses, Russia, 544.
Travelers' permits, Roumania, 539.
Treasury bills, issue, Nicaragua, 543.
Treaties:
  Commercial, Franco-Haitian, 309.
  Commercial, Italy, new, 540.
  Commercial, Mexico and China, 236.
Trunks, demand, Madagascar, 417.
Trusts:
  Orris-root, Italy, 404.
  Tool, Germany, 131.
Tug, harbor, Falkland Islands, 414.
Tulle factories, Germany, 281.
Turf, fuel, Germany, 533.
Turf, paper, 282.
Turkey:
  Certificates of origin, 143, 279.
  Constantinople, sample room, German, 65.
  Electrical goods, 476.
  Machinery, agricultural, 288.
  Tariff change, 66.
  Telegraphic appliances, demand, 476.
  War vessels, purchase, 412.
Turner, C. E. (consul-general, Ottawa):
  Industries, Sault Ste. Marie, 235.
  Lobsters, Canadian, and wood pulp, France, 286.
Tweed trade, Scotland, crisis, 446.
Typesetting machines:
  Belgium, 423.
  France, 424.
  Germany, 425.
  Great Britain, 429.
  Italy, 430.
Typewriters, imports and exports, Germany, 535.

Uganda Railway, British East Africa, 549.
Underwear, United States, England, 346.
Union, commercial, Belgium, 474.
United States:
  Alaska, 529.
  Alaska, mining, 234.
  Circus, Germany, 541.
  Clover seed, Germany, 46.
  Coal, Brazil, 139.
  Coal, Russia, 416.
  Commercial alliance, proposed, with Switzerland, 58.
  Communication with Singapore, 412.
  Emigrants to Buenos Ayres, warning, 414.
  Exports, way to increase, 356.
  Factory timekeepers, Germany, 417.
  Folding beds, opening, South Germany, 350.
  Fruits, Germany, 463.
  Goods, Levant, 416.
  Imports from Manchester, 208.
  Kerosene, Australia, competition, 313.
  Lard, Germany, 282.
  Locomotives, Egypt, 95.
  Lumber, Germany, 180.
  Machinery, Breslau, 348.
  New cable to Germany, 137.
  Passports, Hungary, 134.
  Petroleum in world's market, 478.
  Pig iron, Germany, 354.
  Products, Siberia, 74.
  Sample room, Zurich, 349.
  Shirt waists and underwear, England, 346.
  Shoes, France, 539.
  Shoes, Germany, 351.
  Shoes, Great Britain, 214.
  Skilled labor, Breslau, 348.
  Steamers, new lines, to France, 378.

United States—Continued.
Steamship line to Mexico, new, 413.
Steamship line to Para, 413.
Trade, Germany, 464.
Trade, Scotland, 45.
Trade, Spain, extension, 35.
Vessels, Vancouver, 142.
Watches wanted, Austria, 417.
Wheat, Valencia, 34.
Woolen-cloth imports from Germany, 535.
United States vs. Australian meat, South Africa, 140.
United States vs. German shoes, Switzerland, 403.
University, commercial, Cologne, 545.
Uruguay:
Exports, agricultural, 124.
Knitting industry, 297.
Montevideo, port works, 302.
Montevideo, port works, proposed, 506.
Railways, 507.
Tariff bill, 141.

Valencia:
Tramways, electric, 33.
Wheat, United States, 34.
Van Buren, H. S. (consul, Nice), freight and insurance rates, foreign trade, 27.
Vancouver, United States vessels, 142.
Van Horne, M. (consul, St. Thomas), Danish West Indies, trade, 126.
Vegetable novelties, New Zealand, 497.
Vehicles, Cologne, 458.
Venezuela:
Knitting industry, 298.
Market, cloak goods, 415.
Pearl fishing, 414.
Puerto Cabello, imports and exports, 244.
Puerto Cabello, trade notes, 125.
Stamp law, 258.
Tariff decrees, 522.
Vessels:
German rules as to showing flags, 410.
War, purchase, Turkey, 412.
Victoria, cereal crops, 405.
Vienna, museum, Spanish commercial, 415.
Vintage prospects, Rhine, 538.
Vladivostock:
Customs regulations, temporary, 78.
Dry docks, new, 543.
Notes, 147.
Von Gehren, E. (consular agent, Zacatecas), knitting industry, Zacatecas, 293.

Wages, farm laborers, Sweden, 73.
Wales:
Cardiff, railway strike, 468.
Fuel, patent, manufacture, 469.
Ware, silver-mounted, Germany, a menace to health, 374.
Warehouses, general, Mexico, 150.
Warner, B. H., jr. (consul, Leipzig):
Corset industry, German, protecting, 412.
Market, cloak goods, Venezuela, 415.
Milk inspection, Leipzig, 385.
Municipal pawn shop and savings institution, Leipzig, 381.
Salt prices, Germany, 286.
Shoe experts, German, Paris exposition, 132.
Shoes, United States, Germany, 351.
Telephonograph, 11.
Tulle factories, Germany, 281.
Typesetting machines, Leipzig, 425.
Washington, H. L. (consul, Valencia):
Spain, United States trade, extension, 42.
Tramways, electric, Valencia, 33.
Wheat, United States, Valencia, 34.
Watches, United States, wanted, Austria, 417.
Waterworks, Moscow, 135.
Weather bureau, Germany, 416.
Weber, G. C. E. (consul, Nuremberg), typesetting machines, Nuremberg, 428.
West Africa, clocks, 407.
West Indies, Danish trade, 126.
Wheat:
Export, Argentine Republic, 140.
Malta, 389.
Russian, complaints, Germany, 411.
United States, Valencia, 34.
White, A. D. (ambassador, Berlin, exposition, fire preventing and extinguishing apparatus, Berlin, 182.
Wildman, R. (consul-general, Hongkong), carriages and harness, Hongkong, 327.

Winslow, A. A. (consul, Liege), dredge, Calcutta, 323.
Winslow, E. D. (consul-general, Stockholm):
Coal, Swedish railways, 532.
Wages, farm laborers, Sweden, 73.
Winter, J. F. (consul, Annaberg):
Cotton consumption, Germany, 447.
Glass industry, Annaberg, 409.
Instruments, musical, Philippine Islands, 143.
Lumber trade, Germany, 538.
Motor boats, Dead Sea, 222.
South Africa, German commerce, 98.
Wheat export, Argentine Republic, 140.
Wood, molten, France, 541.
Wood pulp, France, 286.
Wool crisis, France, 445.
Woolen-cloth exports, Germany to United States, 535.
World:
Coffee production, 48.
Copper production, 21.
Petroleum, Russian and United States, in market of, 478.
Steel production, 195.
Worman, J. H. (consul, Munich):
Beds, United States folding, opening, South Germany, 350.
Telegraphone patent rights, 409.
Timekeepers, United States factory, wanted, Germany, 417.

Yerba-mate cultivation, Paraguay, 307.
Yukon:
Conditions, 527.
Copper and quartz, 529.

Zanzibar, economic conditions, 314.
Zurich, sample room, United States, 349.

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